

Can Female National Leaders Mitigate the Negative Effects of Racial Diversity?

Abstract

Racial/ethnic diversity within groups, organizations, and even countries can have negative externalities if left unmitigated. The effects of inequality and exclusion can hinder overall productivity. An experimental study (N = 183) revealed that female leaders are expected to increase empowerment and improve economic outcomes more than male leaders in ethnically diverse settings. Surveys from over 244,000 subjects in 77 countries revealed that female leaders are associated with greater tolerance for diversity and self-expression, especially in highly diverse countries. Lastly, analysis of over 5,800 leader-year observations in 126 countries from 1950 – 2009 revealed that female leaders in highly ethnically diverse countries had mitigating effects on diversity that resulted in positive economic growth. The results imply that leadership in more diverse environments is key to making positive structural shifts around inequality and participation.

Key words: Intra-national Diversity and Inclusion, Gender and Leadership, Economic Growth, Multilevel Analysis

Introduction

Racial/ethnic diversity has the potential to result in better performance and innovation in groups, organizations, and societies through the integration of unique perspectives and ideas (e.g., McLeod, Lobel, & Cox, 1996; Phillips, Northcraft, & Neale, 2006; Richard, 2000; Sommers, 2006), yet race/ethnicity can trigger intragroup conflict and inequalities between groups (e.g., Alesina & La Ferrara, 2005; Shelton, Richeson, & Salvatore, 2005; Toosi, Babbitt, Ambady, & Sommers, 2012). Racial diversity in workgroups can heighten perceptions of and vulnerabilities to negative interpersonal conflict (Jehn, Northcraft, & Neale, 1999; Lount, Sheldon, Rink, & Phillips, 2012; Pelled, Eisenhardt, & Xin, 1999), lead to communication difficulties (e.g., Hoffman, 1985; Mehra, Kilduff, & Brass, 1996), and result in less cohesion (see Mannix & Neale, 2005; Van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998 for reviews). Moreover, organizations also face challenges of higher turnover and lower levels of organizational commitment among employees in diverse settings (Leonard & Levine, 2006). Of particular interest here, high levels of ethnic diversity at a societal level are consistently associated with negative economic development relative to more homogeneous societies (Alesina, Devleeschauwer, Easterly, Kurlat, & Wacziarg, 2003; Easterly & Levin, 1997) as diverse countries are often saddled with ethnic strife and inequality that detracts from resources and growth. At all three levels of analysis – groups, organizations, and societies – diversity can have negative effects when left unmanaged.

Leaders play an important role in managing diversity. At the group level, researchers have argued that leaders who set appropriate norms and serve as role models for others' behavior can help groups benefit from diversity (Burns, 1978; Nishii & Mayer, 2009; Kearney & Gebert, 2009; Krishnan, 2012). Many organizational scholars have previously shown that the ability to mitigate the downsides of diverse and more complex organizational and industry environments resides in having female leadership at the top (Hambrick, Cho, & Chen, 1996; Appold, Siengthai, & Kasarda, 1998; Carpenter, 2002; Dezsö & Ross, 2012). Women in top leadership roles of organizations are thought to be better at sharing power and information and working toward consensus building, which are essential to navigating through the complexities of diverse environments (Ely, 1995; Krishnan & Park, 2005). Given that groups and

organizations are affected by the gender and behaviors of their leaders, we seek to determine whether differences in national leadership by male versus female leaders are associated with significant structural shifts in people's perceptions, attitudes, and behaviors regarding inequality and empowerment, and whether this could mitigate or reverse negative effects of racial/ethnic diversity on societal outcomes.

To consider the perceived and often actual structural inequalities that may undermine outcomes in racially/ethnically diverse settings (DiTomaso, Post, & Parks-Yancy, 2007; Tung, 2008), we move from examining groups and organizations, which tend to be heavily affected by interpersonal behaviors and relationships, to instead address racial/ethnic diversity at the societal-level within countries. By examining country-level racial/ethnic diversity, we can examine how a range of diversity settings respond to context specific process changes driven by differences in national leadership. Our mixed-methods empirical design, which includes an individual level experimental study (N=183), intra-national level (e.g., intragroup) behavioral data from 77 countries (N=244,000) and country level archival data representing 126 countries from 1950 - 2009, allows us to provide an integrated approach to understanding perceptions of inequality in diverse settings at individual, intra-national, and country levels. We find parallel results at each level suggesting that the gender of the leader affects perceptions of the level of empowerment and expected economic growth in highly diverse settings and moreover, highly diverse countries that are female-led are associated with higher individual empowerment, greater tolerance for diversity, and faster economic growth. These performance effects do not emerge for countries that have more racial/ethnic homogeneity.

The Structural Challenges of Racial/ Ethnic Diversity

Organizational and group research on racial/ethnic diversity is marked by complicated and contradictory results (e.g. McLeod et al., 1996; Phillips et al., 2006; Sommers, 2006; Stahl, Maznevski, Voigt, & Jonsen, 2010). Diversity has been shown to have both positive effects and negative effects (see Table 1). On the one hand, there are great potential benefits of diversity such as knowledge exchange, creativity gains and improved performance; however, several factors can inhibit or reverse these positive

outcomes (Hentschel, Shemla, Wegge, & Kearney, 2013; Jackson & Joshi, 2004; Mannix & Neale, 2005; Van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). In trying to understand why the negative effects of diversity occur, scholars have focused mostly on social categorization (Tajfel, 1981) and similarity-attraction (Berscheid & Walster, 1978; Bernstein, 1971) as primary explanations. These extant theories are rooted in interpersonal dynamics within diverse groups without reference to the structural relationships between racial/ethnic groups in society (Alesina & Ferrara, 2000; DiTomaso et al., 2007; Saguy, Tausch, Dovidio, & Pratto, 2009; Tung, 1993, 2008). Moreover, the typical strategies used to mitigate the negative interpersonal effects of racial/ethnic diversity that follow from these theories, such as greater social contact (e.g., Pettigrew & Tropp, 2006), may be insufficient for counteracting the negative effects of structural inequalities that permeate diverse environments (Allport, 1954; Dumas, Phillips, & Rothbard, 2013). This suggests the need for a more structural-based solution that takes into account the broader context of diversity.

DiTomaso et al. (2007) argued that the organizational literature has ignored the psychological and sociological research that focuses on structural inequalities in explaining the downsides of diversity. They identified three aspects of diversity – power differences, status, and numerical representation—to characterize the structural dynamics that lead to inequalities in racially/ethnically diverse environments. These structural inequalities then serve to create problems—not necessarily rooted in interpersonal liking and interactions—that may require a different type of structural intervention. In fact, this perspective suggests that the perceived and actual inequities between racial groups and the disenfranchisement of some members of these groups are issues often left to fester while organizations focus on helping people "get along" in the workplace, often ineffectively (Dumas et al., 2013; Phillips, Rothbard, & Dumas, 2009). Racial diversity is thought to require significant management to avoid these downsides, and despite great effort, many companies still do not achieve desired outcomes (e.g., Jackson, 1992; Jackson & Joshi, 2011; Kochan et al., 2002).

Similar to the organizational level, scholars studying diversity at the country-level have consistently demonstrated that racial/ethnic diversity has a negative impact on economic growth (Alesina

et al., 2003; Collier & Gunning, 1999; Easterly & Levine, 1997; Fearon, 2003). Mounting evidence suggests that racially diverse societies are prone to competition between different groups and can have difficulty agreeing on basic infrastructure, education, and fiscal policies that are all associated with growth (Alesina & Drazen, 1991; Alesina & Rodrik, 1994; Alesina & Spoloare, 1997; Alesina & Tabellini, 1989; Easterly & Levine, 1997). Moreover, polarization and large disparities between ethnic groups can breed social conflict and ethnic exclusion, and negatively affect participation in the society at large (e.g., Alesina & Rodrik, 1994; Alesina & La Ferrara, 2000; Birnir & Waguespack, 2011; La Ferrara, 2002; Putnam, 2007). Bias, racism, and prejudice lead to inequalities in policies that are counterproductive to growth of society as a whole (Alesina & La Ferrara, 2005; Collier, 2000; Sen, 1992).

In examining the impact of diversity, whether at the interpersonal, group, community, or country level, researchers have consistently found evidence of conflict, communication difficulties, lower cohesion, less personal satisfaction, prejudice, racism and other manners of inequitable outcomes (e.g., Easterly & Levine, 1997; Williams & O'Reilly, 1998; Alesina & La Ferrara, 2005; Mannix & Neale, 2005; Putnam, 2007; Stahl et al., 2010; see Table 1 for an overview). This suggests that diversity issues can be nested at each of these levels and as a result, structural interventions that signal a shift in societal inequalities may be needed to change the trajectory of the negative impacts of diversity.

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Leadership and Structural Changes

The structural interventions necessary to mitigate these negative effects have been less clear across these literatures on diversity. Leadership may be effective as a viable structural intervention in changing the negative outcomes of diversity. There is strong evidence of leaders changing the interpersonal and performance outcomes both within organizations (Burns, 1978; Krishnan, 2012) and countries (Besley, 2005; Jones, 2009; Jones & Olken, 2005). For example, in Krishnan's (2012) study of over 285 managers in an organization, he finds that transformational leaders affect the overall well-being, and meaning in life through personal empowerment. Transformational leadership is "based on leaders' shifting the values, beliefs, and needs of their followers" (Krishnan, 2012, p. 551). Similarly, Jones and

colleagues examined the differential impact of leadership at the national level and found that leaders shape the national institutions and policies that ultimately affect economic growth (Jones, 2009; Jones & Olken, 2005).

At the country-level of analysis, more recently, Perkins, Phillips, and Pearce (2013) identified a structural intervention that mitigated the negative effects of diversity – having a female national leader. Though the representation of female national leaders in modern history is scarce, this study found that in countries with high levels of ethnic fractionalization (i.e., defined by Alesina et al., 2003, as the likelihood that two randomly selected individuals in a society are of different ethnic groups), having a female national leader (i.e., president or prime minister) versus a male national leader is associated with a 6.6% increase in economic growth; more effective than other growth interventions such as education, infrastructure investment or stronger rule of law.

This finding provides a key insight and motivates further inquiry in understanding why female national leaders might be more effective in ethnically diverse settings. We further explore the influence a female leader has on perceptions of personal empowerment and tolerance for diversity, and examine whether these shifts in attitudes, values and behaviors lead to greater economic performance overall (See Appendix – conceptual framework).

The Mitigating Role of Female Leadership

Although women are less likely to generally be *perceived* as leaders compared to men due to gender stereotyping (Eagly & Karau, 2002), female leaders are preferred in certain situations which value feminine traits (Eagly & Carli, 2003). Female leaders are *perceived* as more appropriate for settings characterized by greater intragroup competition, as opposed to intergroup competition where men are preferred (Van Vugt & Spisak, 2008). For example, evolutionary psychologists (Spisak, Homan, Grabo, & Van Vugt, 2012; Van Vugt & Spisak, 2008) have demonstrated that people look for leaders that fit adaptive problems being faced in the setting. Spisak et al. (2012) found that people choose leaders with more feminine facial characteristics when the situation is perceived to warrant more cooperation between group members. In such situations, feminine leadership prototypes were identified as “peacemakers,”

whereas masculine leadership prototypes were identified as “warriors.” Therefore, in intragroup settings (e.g., intra-national) presented with high levels of competition between group members and a need for conflict resolution based on racial/ethnic divides, female leaders may be perceived as a better fit than men.

Beyond these *perceptions* of female leadership traits, there is evidence of actual differences in how men and women lead in organizations and teams. Meta-analyses of laboratory experiments and assessment studies show that women tend to lead with a more participative-democratic or transformational style, rather than the top-down or autocratic styles associated with male leaders (Eagly, Makhijani, & Klonsky, 1992; Eagly & Johnson, 1990). Women also tend to express less inclination toward social dominance, or a preference for group-based hierarchy, than men (Sidanius & Pratto, 1999; Sidanius, Pratto, & Bobo, 1994). This suggests that when women lead they may not aim to boost their own group over others, reducing one of the central problems in racially diverse situations –competition and inequitable distribution of resources between groups.

The perceived differences in female leadership traits coupled with the behavioral aspects of women’s leadership style differences suggests that women may actually lead differently in racially diverse settings than their male counterparts. Both of these explanations are consistent with anecdotes from the political campaigns of female national leaders in recent history who won based on their vision to make changes related to inclusion, equality and reunification (e.g., Presidents Park Geun-hye of South Korea, Ellen Johnson Sirleaf of Liberia, and Michelle Bachelet of Chile). We do not attempt in this paper to disentangle these explanations, but rather test both, given that expectancies and outcomes are strongly intertwined.

Effects of female leaders on empowerment

Perceptions. Similarly we argue that the impact of female leaders will be achieved through both peoples’ perceptions of empowerment and actual shifts in attitudes and beliefs around empowerment. From a symbolic structural perspective, women are typically (though not always) granted lower status than men (Ridgeway, 2011), and gender disparities persist in terms of human survival rates, economic

viability, and overall participation in society (Sen, 1989, 1992). Compounding these factors, women are less likely than men to hold leadership positions at just about every level of society (Bureau of Labor Statistics, 2007; Perkins et al., 2013; Soares, Bonapart, Campbell, Margolin, & Spencer, 2012). Yet when a woman leads, others who identify with her gender/ lower status are empowered (Lucas, 2003). For example, Ely (1995) and Dezsö and Ross (2012) found that having women in leadership positions in organizations motivates women in middle management. Likewise, female top management team members are motivated by females on corporate boards (Matsa & Miller, 2011). Moreover, organizations that have female leaders signal their commitment to the advancement of other women in the organization (Daily & Dalton, 2003) and greater value is placed on their presence (Bilimoria, 2006). Thus, notwithstanding the barriers that women still face in rising to leadership positions, female leaders may be perceived to be better at empowering individuals than males in racially diverse situations because of symbolic positioning of a low-status person in a high-status position. We argue that having a woman in the top national leadership position may help mitigate the potential negative effects of racial diversity and level the playing field by empowering underrepresented and disenfranchised groups. Status equalization has been shown to be beneficial for performance (Woolley, Chabris, Pentland, Hashmi, & Malone, 2010) and may lead to less disenfranchisement and greater empowerment of racial minority groups as well as all other members of the setting whose contributions traditionally have been devalued.

H1a: Individuals will have higher levels of *perceived* empowerment in highly diverse country settings with a female versus male leader.

Shifting attitudes and behaviors. In conjunction with the perceptions of empowerment that comes from the symbolism of having female leaders, evidence suggests that shifts occur in people's attitudes and behaviors in expressing new forms of empowerment that otherwise were lacking or nonexistent. For example, Beaman, Duflo, Pande, and Topalova (2012) reveal actual structural shifts in both the attitudes and behaviors that improved attainment levels of young girls versus boys when women

led. This study examined data from a natural experiment of a leadership policy change which mandated reserved seats for female leaders in Indian villages, and found that villages led by females demonstrated significant changes in the attitudes of parents' aspirations for their daughters and young girls' aspirations for their own futures. This change in leadership led to a structural shift in girls being more empowered and narrowed the gender gap due to the creation of more equality for girls. Equally, Chattopadhyay and Duflo (2004) found that mandated changes in electoral regimes reserving seats for female leaders created shifts in power resulting in greater empowerment of women. This suggests that tangible shifts in inequalities when females lead can be measured through changes in attitudes of how people view themselves in society and how their behavioral changes affect their overall participation and presence in society. Welzel and Inglehart (2008) argue that cultural changes in empowerment are derived from people's unique self-expressions, which are highly correlated with participation in society. Thus an important link to achieving full participation across all groups is to remove the structural barriers that inhibit some racial/ethnic groups from full self-expression and engagement. We argue that female leaders are more effective at removing these barriers, leaving individuals with attitudes and behaviors that are aligned with empowerment such as self-expression and greater participation in society.

H2a: Individuals will have higher levels of engagement (i.e., empowerment attitudes, self-expression and participation) in more diverse countries with a female national leader versus a male national leader.

Effects of female leaders on increasing tolerance for diversity. A complementary approach to empowerment is shifting attitudes towards social inclusion. To resolve the negative effects of differences between racial/ethnic groups, creating a culture of inclusiveness is critical (Tung, 1993). Given the role of societal inequality and proportional differences among racial groups in shaping outcomes (DiTomaso et al., 2007), shifting the overall tolerance for diversity is one mechanism that could rebalance the intra-national relationships and foster more empowerment, participation and self-expression of minorities. The

two operate in a symbiotic manner. Psychological research has shown that women tend to report more positive attitudes toward racial minorities than men (Eagly, Diekmann, Johannesen-Schmidt, & Koenig, 2004; Hausmann & Ryan, 2004; Johnson & Marini, 1998) and minority group members also express more positive attitudes toward women from the majority group than toward men (Timberlake & Estes, 2007). These attitudes conform closely to gender roles that position women as more cooperative, friendly, and supportive of egalitarianism (Berger, Rosenholtz, & Zelditch, 1980; Eagly, 1987; Rudman & Glick, 2008). This egalitarianism may have an effect on the society's tolerance for diversity, whether explicitly expressed in policy directives or exerted influence through the symbolic effect of female leadership. Either can elicit a structural shift in attitudes of inclusion with female versus male leaders, particularly in more diverse settings where this leadership trait is needed most.

H2b: Individuals will have higher levels of tolerance for diversity in more diverse countries with a female national leader versus a male national leader.

Effects of female leaders on increasing economic performance. The combination of more empowerment and more tolerance for diversity among members of a diverse population may do a great deal to boost economic growth. Perkins et al. (2013) show that female presidents and prime ministers from 1950 – 2004 have better economic performance than their male counterparts in countries with higher ethnic fractionalization. We believe the explanation for this is multifold. First, the biosocial contingency model of leadership suggests that people might have a perception that female leaders will do more to change the economy. When situations present a need for feminine leadership traits, people are more inclined to choose those leaders in the hopes that they can bring about the necessary changes (Spisak et al., 2012; Van Vugt & Spisak, 2008). Second, when people feel empowered, they are more likely to participate in society. In highly diverse country settings, oftentimes these benefits of diversity lie in the communities that have been disempowered and disenfranchised. However, as noted above, empowerment can accelerate development (Duflo, 2011). When women have access to power through leading their

communities, females attain higher levels of education (Beaman et al., 2012), infrastructure investments are made that are priorities to women (Chattopadhyay & Duflo, 2004), and this results in reduced levels of gender inequalities. Both infrastructure development and education are positively correlated with growth (Barro & Lee, 1993, 2010; Solow, 1956). The combination of such policy changes and empowerment could create a virtuous cycle of economic development (Duflo, 2011). We believe the same applies in racially/ethnically diverse communities that suffer from high inequalities between groups. Alesina and La Ferrara (2005) also theorize that one of the most costly downsides to ethnic diversity is the inability to agree on public policy and the distribution of public goods. Given the more inclusive leadership style of women versus men, this problem can potentially be mitigated by female national leaders more than male leaders. These three taken together — individual perceptions and attitudes of empowerment, more inclusive policy changes, and investments in public goods where inequalities exist —should result in overall economic growth during the periods in which women lead countries with high levels of racial/ethnic diversity.

We test these ideas in two ways: first by measuring individuals' perceptions of economic growth and second, by measuring economic growth with actual country-level data. This allows us to test the overall rationale that individual feelings of empowerment will be linked to perceptions of economic growth, lending some support for the notion that economic growth in countries may indeed be affected by the attitudes and behaviors of the people within that country.

H1b: Individuals will perceive higher levels of expected economic development in female led versus male led highly diverse country settings.

H1c: Higher perceived individual empowerment will lead to higher expected economic development in female led versus male led highly diverse country settings.

H3: At the country-level, female leaders are more likely than male leaders to positively impact the economic growth in highly diverse societies.

EMPIRICAL METHODS

Mixed-Methods Research Design

We used a mixed-methods design intended to first examine individuals' perceptions of female versus male leaders in more or less diverse contexts in an experimental study. This empirical study measures significant perceptions about the negative influence of racial diversity on society and the influence of female leadership on empowerment (H1a) and economic performance (H1b), and the mediating relationship of empowerment on economic performance (H1c). Then, we used survey response data from the World Values Survey (WVS) to examine the intra-national attitude and behavioral shifts in empowerment (H2a) and tolerance for diversity (H2b) associated with female versus male leaders in diverse settings. Lastly, we use archival data at the country-level to test the mitigating effects of female leadership on economic growth of the country (H3).

EXPERIMENTAL STUDY

Participants and Research Setting

To understand participants' perceptions of female leaders, we conducted an experiment featuring a fictitious country, "Elmoa," and provided different information regarding the ethnic diversity and the president's gender. The study employed a 2 (diversity: high or low) x 2 (gender: female or male president) between-participants design. The dependent variables of interest were perceived levels of empowerment and expected economic growth. Participants were presented with the experimental manipulations in the format of a short newspaper article titled "Elmoa's big election results are in: Deborah/ David Markova wins the presidential race," describing the outcome of the recent presidential election for the presidency with either a female (Deborah) or a male (David) candidate winning the race. In the high cultural diversity condition, the article described Elmoa as a country that "historically has been very ethnically diverse," with over 20 different racial groups represented. In the low cultural diversity condition, Elmoa was described as a country that "historically has *not* been very ethnically diverse," with only three different racial groups represented. After reading about Elmoa, participants

responded to a survey containing the dependent measures. Participants were 183 adults (118 female; $M_{age}=33.65$, $SD=12.95$; 135 White, 30 Asian) from a national online pool at an American East coast university as well as Amazon Mechanical Turk.

To assess their perceptions of the empowerment of the population under the male or female leader, we asked participants to indicate how likely it would be that members of all racial groups would feel included and empowered in the country with three questions. The questions were “How likely will members of all ethnic groups feel empowered to contribute to the country?” “How likely will members of all ethnic groups feel like they can make change happen in the country?” and “How likely will members of all ethnic groups feel like their voices will be heard by the government?” (averaged into one empowerment scale, $\alpha = .93$). Finally we measured people’s perception of economic growth asking people, “What is the likelihood that the country’s economic situation will improve under the leadership of President Markova?”, “What is the likelihood that the country will see economic growth with this leader in place?”, “What is the likelihood that the Gross Domestic Product (GDP) will expand under the leadership of the president?” We computed the economic growth score averaging the three items ($\alpha = .94$).

Experimental Results

Empowerment. We performed a 2 (diversity: high vs. low) x 2 (leader’s gender: female vs. male) analysis of variance on the outcome measure of perceived empowerment. There was no interaction between leader’s gender and the diversity condition on perceived empowerment, $F(1, 179) = 0.11$, $p = .745$, $\eta^2 = .001$; however, we found a main effect of leader’s gender, such that participants perceived the female leader as more empowering ($M = 4.85$, $SD = 0.93$, 95% CI [4.66, 5.04]) than the male leader ($M = 4.42$, $SD = 1.13$, 95% CI [4.18, 4.66]), $F(1, 181) = 7.94$, $p = .005$, $\eta^2 = .04$. The effect holds when we controlled for gender of the participant, $F(1, 180) = 7.72$, $p = .006$, $\eta^2 = .04$. To explore further, we split data by the diversity (high vs. low) condition. The female leader ($M = 5.02$, $SD = 0.95$, 95% CI [4.75, 5.30]) was perceived as more empowering than the male leader ($M = 4.53$, $SD = 1.06$, 95% CI

[4.23, 4.84] in the highly-diverse Elmoa, $F(1, 95)=5.74, p=.019, \eta^2=.06$. In the low-diversity version of Elmoa, the difference between the female leader ($M=4.67, SD = 0.88, 95\% CI [4.42, 4.93]$) and the male leader ($M=4.28, SD = 1.21, 95\% CI [3.89, 4.67]$) on perceived empowerment is marginally significant, $F(1, 84)=3.03, p=.085, \eta^2=.04$. These findings partially support our hypothesis (H1a) that people perceive female leaders as more empowering when the country was described as having high ethnic diversity. Female leaders seem to be viewed as more empowering than male leaders in general.

Economic growth. In examining the effects of our diversity and gender of the leader manipulations on expectations of economic growth, there was not a main effect for the gender of the leader. However, there was a positive and significant interaction effect of having a female leader (vs. male) in the high ethnic diversity condition (vs. low diversity) on perceptions of economic growth, $F(1, 179) = 4.02, p = .046, \eta^2 = .02$. In the highly diverse Elmoa, participants thought the economic situation would improve more under the female president ($M = 4.79, SD = 0.88, 95\% CI [4.54, 5.05]$) than the male president ($M = 4.41, SD = 0.82, 95\% CI [4.17, 4.64]$), $F(1, 95) = 4.92, p = .029, \eta^2 = .05$. However, in the low-diversity version of Elmoa, there was no significant difference between the female leader ($M = 4.44, SD = 0.92, 95\% CI [4.17, 4.71]$) and male leader ($M = 4.56, SD = 0.77, 95\% CI [4.31, 4.81]$) on the expectations of economic growth, $F(1, 84) = 0.45, p = .50, \eta^2 = .01$. When splitting data by the gender of leader (female vs. male), we found that people thought the GDP of the country would improve more with a female national leader when Elmoa had high ($M = 4.79, SD = 0.88, 95\% CI [4.54, 5.05]$) rather than low diversity ($M = 4.44, SD = 0.92, 95\% CI [4.17, 4.71]$), $F(1, 93) = 3.62, p = .06, \eta^2 = .04$. However, there is no significant difference between high ($M = 4.41, SD = 0.82, 95\% CI [4.17, 4.64]$) and low diversity ($M = 4.56, SD = 0.77, 95\% CI [4.31, 4.81]$) conditions on expectations of economic growth with a male national leader, $F(1, 86) = .83, p = .37, \eta^2 = .01$. This finding supports the hypothesis (H1b) that people perceive female leaders as bringing more economic growth when the country was described as having high diversity.

Mediation. Mediation analyses demonstrated the relationship between level of diversity (predictor variable), the presence of a female leader (moderator), levels of perceived empowerment

(mediator), and expectations of increased economic growth (outcome variable). We conducted a bootstrapping test using an SPSS macro (Preacher & Hayes, 2008) due to small sample sizes (Fritz & MacKinnon, 2007). The results showed that empowerment (1000 samples, 95% CI [.0038, .2539]) mediated the relationship between cultural diversity and economic improvement, moderated by the gender of the leader. This experimental study provides insight into people's perceptions about which structural settings of diversity female leaders are likely to fit. A female leader was seen as slightly more likely to help improve economic outcomes in the nation when the country had high rather than low diversity. More broadly across contexts, female leaders are perceived as more empowering to members of all ethnic groups in their countries. We further build upon these experimental results by examining the intragroup behavioral data.

INTRAGROUP BEHAVIORAL DATA

For the intragroup analyses, we use survey data from the WVS country-wave responses from 1990 – 2012. We use the WVS because the broad coverage across countries allows us to examine many structural variations of naturally occurring designs of “Elmoa” around the world, but also because of the Positive Organizational Scholarship measures that provide indicators on people's overall quality of life and well-being. This in-country, home-language survey covers 77 countries with an average of 1,423 respondents per country in each wave of the study. Subjects are identified by ethnic group as a voluntarily reported survey item. There is an average of 6.8 ethnic groups per country.¹ Based on this dataset, we constructed our two dependent variables, tolerance for diversity and empowerment. Consistent with the methodology developed by Inglehart and Welzel (2005), we created a tolerance for diversity index based on the scale responses to a series of questions regarding willingness to have a neighbor that is of another race, an immigrant, a homosexual, or has HIV/AIDS. The WVS scale captures each response where a respondent mentioned a problem with having a neighbor of this type, thus

¹ In some countries, this question was not asked. Instead we used language or immigrant status as a proxy for ethnic group.

producing a measure of intolerance. For our purposes, we inverted the scale and summed the responses, resulting in a range from 0-4, where 4 equals high tolerance for diversity and 0 equals intolerance for diversity. To measure empowerment, we used the self-expression/participation scores of the items that loaded onto the factor analysis conducted by Inglehart and Welzel (2005). Survey questions from the 5 scales that loaded onto this factor are: Life satisfaction and subjective well-being ($\alpha=.81$), generalized interpersonal trust ($\alpha=.46$), political activism ($\alpha=.74$), tolerance of other's liberty ($\alpha=.77$), and post-materialistic values ($\alpha=.87$). Scores were standardized and summed as an index from 0-5, where 5 equals high self-expression/participation and 0 is self-suppressed (e.g., survival) and non-participation. We use country-level data from the Archigos and Worldwide Women's Leader databases to connect the leaders to the periods of study of the WVS in each country. The leader gender variable is coded as 1 for female leaders and 0 for males. We also use a national measure for overall cultural diversity (Fearon, 2003) which captures both the composition and proportion of ethnic groups within a country as well as ethnic structures and the dissonance between groups within the country. This comprehensive measure of ethnic groups and cultural diversity covers 822 ethnic groups that made up at least 1% of the population in 160 countries (Fearon, 2003). This country-level diversity measure, unlike others (Alesina et al., 2003; Easterly & Levin, 1997), accounts for both of these structural factors which largely have been neglected in prior groups and organizational research on race/ethnic diversity (DiTomaso et al., 2007). The consideration of both are taken into account in an index from 0 to 1, where 0 represents completely homogeneous societies and 1 represents highly culturally diverse societies with greater dissonance between the ethnic groups. Figure 1 provides an example of select country-level cultural diversity scores. For example, one of the most ethnically homogenous countries in our sample is North Korea (PRK) (cultural diversity=0.002) and one of the most diverse is India (cultural diversity =.67). We analyze these results using OLS regression. Descriptive statistics are reported in Table 2.

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Controlling for the size of the populations within each country, we find a significant negative main effect which demonstrates that a high level of cultural diversity within the country is associated with lower levels of tolerance for diversity (Table 3). Among these 244,000 respondents to the WVS in these 77 countries, the intragroup dynamics of getting along and tolerating each other is reportedly different as cultural diversity increases. We also find that having a female leader is positive and significantly associated with more tolerance for diversity than male leaders. This provides evidence that suggests female leadership traits as well as possible policy changes of those leaders may lead to higher levels of inclusion between groups. In model 3 of Table 3, we find that in countries with high levels of cultural diversity, tolerance for diversity is positive when the country is led by a female national leader. Similarly, we also find that on average, WVS respondents are less empowered in countries with higher levels of cultural diversity (Table 4). However, people report being more empowered with female leaders than male leaders and in high culturally diverse countries that have a female leader, the otherwise negative association with cultural diversity and empowerment is negated. These two results from Tables 3 and 4 taken together suggest that individuals in society are dealing with their differences and responding to the environment with higher levels of empowerment when women versus men lead. This suggests that through a structural shift in leadership, the attitudes, beliefs and well-being of individuals as they participate in society can be transformed.

----INSERT TABLES 3 & 4 ABOUT HERE-----

COUNTRY-LEVEL DATA

To compare economic performance outcomes (H3) among national leaders at the country level, we use longitudinal performance data that can be mapped onto distinct leadership regimes. To precisely link the two, we use annual Penn World Table Gross Domestic Product (GDP) growth data[‡] (Heston, Summers, & Aten, 2012) for the subsequent year (GDP growth year +1). Leader performance is matched to the subsequent GDP growth year to avoid performance attribution errors during the years the leader

[‡] Growth is calculated as the annual growth rate of Real GDP per capita in constant year 2000 prices.

transitions in and out of office (Jones & Olken, 2005). We follow the longstanding tradition of development economists, political scientists and international institutions (i.e., The World Bank and the United Nations) that use GDP growth data to examine economic performance differences. Again, we use the Archigos and Worldwide Guide to Women in Leadership datasets also used in the intragroup analysis to identify the leader's gender (1 = female; 0 = male) for presidents and prime ministers. Models in Table 6 were estimated using OLS regression². We also collect data on known controls that are associated with annual GDP growth rates, including Gapminder population database (size proxy³; Lindgren, 2008), paved roads (investment rate proxy; World Bank, 2011), post-secondary schooling (human capital proxy; Barro & Lee, 2010), and rule of law (institutional development proxy; Freedom House, 2008). The combination of these datasets yields 5,893 leader-year observations from 1950-2009, representing 126 countries in total. See Table 5 for correlations.

----INSERT TABLE 5 ABOUT HERE-----

Country Level Results

Results on the cultural diversity of the country, gender of the leader, and the leader moderating effects are presented in Table 6. Model 1, our baseline, replicates the predicted economic development results that GDP grows at a higher rate in countries with higher investments in infrastructure, human capital and strong rule of law. In Model 2, we test whether there are overall GDP growth rate differences given the complexity of cultural diversity (e.g., composition and dissonance between groups) and find a negative and significant relationship. A one unit increase in cultural diversity is associated with -1.44% economic growth ($p < 0.001$). This is consistent with previous cross-country comparative studies which demonstrate that cultural diversity is a negative correlate of GDP growth. Model 3 reveals that female leaders on average have a positive and significant impact on economic growth when controlling for cultural diversity of the country among other factors. This is consistent with the findings from the

² Additional robustness checks were conducted using the GDP growth rate two-year time lead (GDP year +2) to capture the period before, during and after the leader took office. We find both the GDP year and two year lead produces mostly consistent results.

³ Population data was log transformed to address the right skewed distribution of the variable.

intragroup level data which also revealed positive associations of female leadership with the tolerance for diversity and empowerment dependent variables. Results from the interaction test of cultural diversity and gender (Model 4) revealed a positive, significant ($p < 0.05$) association with GDP growth rate. This translates to a 5.4 % GDP growth rate in the subsequent year if the country has extremely high cultural diversity (e.g., cultural diversity=1) and a female leader. This result provides evidence consistent with the experimental study that revealed that women leaders are perceived to positively affect economic development in diverse environments relative to their male counterparts. As perception shapes reality, we infer that as people are empowered, they participate more in society. Their participation combined with policy changes that possibly create structural shifts are factors in the positive and significant impact a female leader has in diverse societies.

----INSERT TABLE 6 HERE----

Discussion

Using a multi-methods approach, this research has demonstrated that the negative effects often associated with cultural diversity are far from inevitable. The impact of having a female leader versus a male leader marks a structural shift with far-reaching consequences, leading to increased expectations of empowerment and higher tolerance for diversity among all the members of the population; these factors, in turn, result in stronger expected and actual economic performance. The difference created by a female leader stands in stark contrast to the association typically found between racial diversity and negative economic growth and other outcomes, in many cases due to the historical and contemporary antecedents of inequalities, prejudice and exclusion, social conflict and disenfranchisement leaving some ethnic groups more expressed than others. The results of having a female leader, systematically achieved at the societal level, can inform how shifts in outcomes of racial/ethnic diversity might be achieved in organizations. These results also provide converging evidence with previous studies in the corporate sector, where the presence of female leaders in the top ranks of U.S. corporations has had a positive effect

on performance (i.e., more profitable and innovative), but even more so in complex innovation situations where pro-social behaviors and diverse perspectives are most needed (Adler, 2001; Dezsö & Ross, 2012).

The results of our study and studies of private sector organizations illustrate the magnitude of the challenges and opportunities facing nations and organizations. Although women represented about half of the world's population, in the countries we covered between 1950–2009, women comprised only a small subset (around 5%) of national leaders. At the country level, there have been only 30 female prime ministers and 18 presidents since 1950 (Perkins et al, 2013). Women on average hold less than 15% of the parliamentary seats around the world (World Bank, 2011), which fuels the pipeline for possible future female national leaders. Women are entering these national leadership roles throughout the world by changing voter attitudes towards female leaders (Beaman, Chattopahyay, Duflo, Pande, & Topalova, 2009), and instigating gender-based political leadership quotas (Dahlerup, 2006). Corporate America is without exception. At the organizational level in the United States, the numbers show similar underrepresentation: women make up almost half (46.6%) of the American workforce, but only about a third of US managers, around 15% of executive officer positions in the Fortune 500 (top U.S. firms) and the *Financial Post* 500 (top Canadian firms), and a mere 1% of the CEOs in these corporations (Bertrand & Hallock 2001; Bureau of Labor Statistics, 2007; Soares et al., 2012). Perhaps efforts to specifically address the equitable representation of all groups – whether gender, ethnic, or otherwise – in the top leadership of a society's economic and decision-making bodies could stimulate empowerment, appreciation for diversity, increased participation, and economic advancement for all members of society (Lijphart, 1977).

At the intragroup level, our research indicates that the benefits of diversity can be leveraged by allowing for greater levels of empowerment and making room for this participation with higher levels of tolerance for diversity. The two combined create a symbiotic relationship that makes room for better outcomes for all. Though inequality has often been thought of as a zero-sum game, to the contrary, the gains received through increased inclusiveness in diverse settings include greater economic participation from those otherwise-devalued minority groups, which leads to greater economic development for the

country or organization as a whole. Boosting such Positive Organizational Scholarship (POS) measures that affect overall human well-being and life satisfaction is key to moving beyond an otherwise divided society.

Future studies could further explore the relationships between societal structural shifts and group composition (i.e., minority versus majority groups) and the impact these shifts have on organizational performance and intra-organizational effectiveness.

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Figure 1: Cultural Diversity by Country

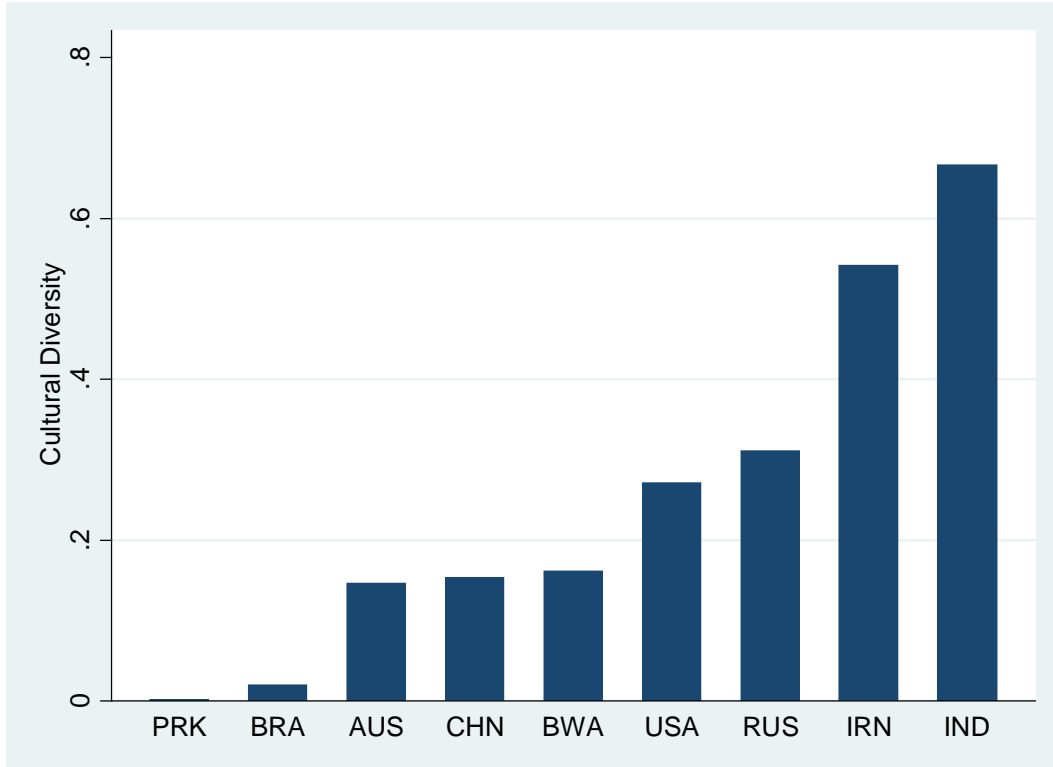


Table 1: The Effects of Cultural Diversity – Multi-level Analysis

Level of Analysis	Negative Effects	Positive effects	Moderating effects of leadership
Groups/Teams	<p>Associated with higher turnover rates for top management team members (Jackson et al., 1992)</p> <p>Exacerbates conflicts (Jehn, Northcraft & Neale, 1999)</p> <p>Perceived less effective interactions (Phillips, Liljenquist & Neale, 2009)</p> <p>Racial diverse workgroups associated with negative performance (Jehn & Bezrukova, 2004)</p>	<p>Racial minority presence increases integrative complexity (Antonio et al., 2004).</p> <p>Better performance than homogenous groups (Phillips, Liljenquist & Neale, 2009)</p> <p>Produces more creative ideas than homogenous groups (McLeod, Lobel, & Cox, 1996)</p>	<p>Female leaders are more democratic and participatory than males (Eagly and Johnson, 1990)</p> <p>Female leadership prototypes are associated with higher cooperation (Spisak et al., 2012)</p>
Organizations	<p>Perceived diversity is associated with lower team identification and more relationship conflict (Hentschel et al., 2013)</p> <p>Gender diversity is associated with lower pro-social behaviors (Kizilos, Pelled, & Cummings, 1996)</p>	<p>Gender diversity in senior positions enhance female's promotion rate within the organization (Cohen, Broschak, & Haveman, 1998)</p> <p>Heterogeneity of the TMT is associated with higher firm growth (Eisenhardt & Schoonhoven, 1990)</p>	<p>Female top management team (TMT) members are positively associated with better performance in high innovation industries (Dezsö & Ross, 2010)</p> <p>Adding women on corporate boards improves corporate governance (Kramer, Konrad, Erkut, & Hooper, 2006)</p> <p>Transformational leadership leads to better team performance ratings for diverse groups (Kearney & Gebert, 2009)</p>
Country	<p>Ethnically fractionalized countries have slower growth (Alesina et al., 2003), particularly African nations (Easterly and Levine 1997)</p>	<p>Uniquely diverse societal ethnic mixes can lead to innovation and creativity (Alesina and La Ferrara, 2005)</p>	<p>Changes in national leadership affects economic growth trajectory (Jones and Olken, 2005)</p>

	<p>Ethnic conflicts negatively effects economic development and performance (e.g., countries, American inner cities, and African villages (Alesina and La Ferrara, 2005)</p> <p>Minority groups participate less when ethnic fractionalization is high (Alesina and La Ferrara, 2000)</p>		<p>Diversity of leadership mitigates exclusion of ethnic groups (Birbir and Waguespack, 2011)</p> <p>Female presidents and prime ministers grow the economy faster in high ethnically fractionalization countries (Perkins, Phillips, and Pearce, 2013)</p>
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Table 2. Descriptive Statistics and Correlations

Variables	Obs	Mean	Std. Dev.	Min	Max	1	2	3	4
1 Tolerance for Diversity	279,407	0.663	0.307	0.000	1.000				
2 Empowerment	226,276	0.091	2.228	-6.669	8.274	0.2200*			
3 Population (Log)	303,355	17.330	1.504	14.093	21.026	-0.0565*	0.003		
4 Cultural Diversity	292,339	0.279	0.196	0.000	0.667	-0.0764*	-0.0262*	0.1242*	
5 Leader Gender	303,355	0.053	0.223	0.000	1.000	0.0617*	0.0747*	-0.0436*	-0.0159*

* p<0.05

Table 3. Regression - Tolerance for Diversity

	Cultural Diversity		Gender Leader		Moderation	
Population (log)	-0.012	***	-0.011	***	-0.011	***
	0.00		0.00		0.00	
Cultural Diversity	-0.103	***	-0.101	***	-0.105	***
	(0.00)		(0.00)		(0.00)	
Gender National Leader			0.049	***	0.012	*
			(0.00)		(0.01)	
Cultural Diversity X Gender Leader					0.139	***
					(0.02)	
Constant	0.897	***	0.886	***	0.883	***
	(0.01)		(0.01)		(0.01)	
R ²	0.009		0.011		0.011	
Observations	244,000		244,000		244,000	

* p<0.05, ** p<0.01, *** p<0.001

Table 4. Empowerment

	Cultural Diversity		Gender Leader		Moderation	
Population (log)	0.008	*	0.019	***	0.02	***
	(0.00)		(0.00)		(0.00)	
Cultural Diversity	-0.302	***	-0.307	***	-0.328	***
	(0.03)		(0.03)		(0.03)	
Gender National Leader			0.736	***	0.507	***
			(0.02)		(0.05)	
Cultural Diversity X Gender Leader					0.863	***
					(0.17)	
Constant	0.054		-0.168	**	-0.177	**
	(0.06)		(0.06)		(0.06)	
R ²	0.001		0.005		0.005	
Observations	201,000		201,000		201,000	

* p<0.05, ** p<0.01, *** p<0.001

Table 5. Descriptive Statistics and Correlations

Variable	Obs	Mean	Std. Dev.	Min	Max	1	2	3	4	5	6
1 GDP Growth (+1 Year)	7661	2.230	7.001	-64.408	115.420						
2 Schooling	8883	5.352	3.331	0.053	13.270	0.042					
3 Rule of Law	11403	8.509	4.628	0.000	16.000	0.054	0.563				
4 Population (Log)	11529	15.201	2.034	8.915	21.026	0.049	0.056	-0.039			
5 Paved Roads	11151	46.706	32.164	0.800	100.000	0.102	0.467	0.339	0.120		
6 Cultural Diversity	7618	0.297	0.213	0.000	0.733	-0.067	-0.234	-0.251	-0.011	-0.197	
7 Leader Gender	11529	0.027	0.162	0.000	1.000	0.040	0.075	0.035	0.118	0.051	-0.014

Table 6. Regression GDP Growth (Lead +1 Year)

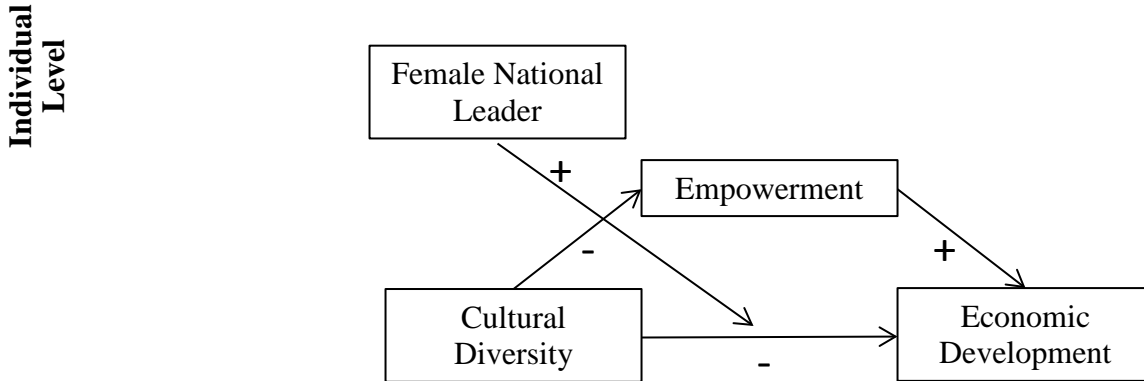
	Controls	Cultural Diversity	Gender Leader	Moderation
Population (log)	0.124 *	0.176 **	0.16 **	0.152 **
	(0.05)	(0.06)	(0.06)	(0.06)
Paved Roads (%)	0.02 ***	0.018 ***	0.018 ***	0.018 ***
	(0.00)	(0.00)	(0.00)	(0.00)
Average Schooling (Years)	-0.058	-0.062	-0.066	-0.061
	(0.03)	(0.03)	(0.03)	(0.03)
Rule of Law	0.051 *	0.042	0.042	0.041
	(0.02)	(0.02)	(0.02)	(0.02)
Cultural Diversity		-1.444 ***	-1.448 ***	-1.597 ***
		(0.40)	(0.40)	(0.41)
Gender National Leader			1.115 *	-0.351
			(0.46)	(0.79)
Cultural Diversity X Gender Leader				5.428 *
				(2.37)
Constant	-0.854	-1.131	-0.89	-0.706
	(0.81)	(0.95)	(0.96)	(0.96)
R ²	0.012	0.015	0.016	0.017
Observations	6311	5893	5893	5893

* p<0.05, ** p<0.01, *** p<0.001

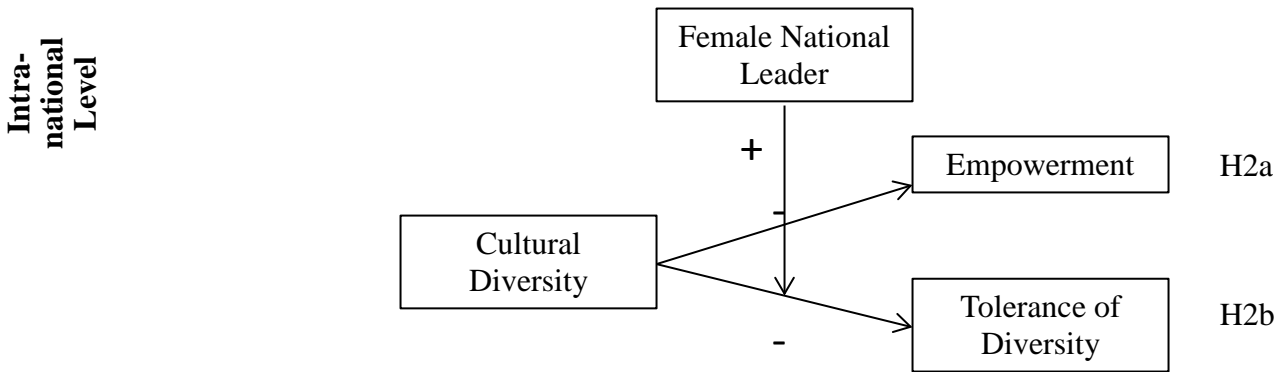
APPENDIX

Conceptual Framework

Hypothesis 1: Perceptions of Situational Leader



Hypothesis 2: Structural shifts in attitudes and behaviors of empowerment and tolerance for diversity



Hypothesis 3: Structural shifts in mitigating the negative economic growth associated with country-level cultural diversity

