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Samuel Fadare Regent University, samufad@mail.regent.edu

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# Leadership Styles and Effectiveness Among Sub-Saharan African Employees

SAMUEL FADARE, PHD LAGOS, NIGERIA

#### Introduction

Scholars such as Yiing, Zaman, and Ahmad (2009) and Walumbwa, Lawler, Avolio, Wang, and Shi (2005) suggest the existence of significant moderating effects in relationships between leadership styles and leadership effectiveness. A search through the OneSource database, however, determined that most studies on moderating effects between leadership styles and leadership effectiveness predominantly have an Anglo-centric focus. Indeed, no study was found that considered the possibility of dimensions of organizational commitment moderating the strength or direction of relationships between transactional and transformational leadership styles and leadership effectiveness among sub-Saharan Africans. According to Barbeschi (2002), in any organization, like countries, there are cultural and political realities that affect the way diverse workforces function. Given a dearth of research that examines Anglo-centric leadership theories in the context of sub-Saharan Africa and the assumptions of implicit leadership theory regarding the attributes, traits, and skills required for effective leadership in organizations (Javidan, Dorfman, de Luque, & House, 2006), any research that explores the full range of leadership theories and their practical application in societies other than where they were developed would make a significant contribution to existing knowledge available in this area of organizational leadership.

This study contributes to what little knowledge is available by answering the research question of whether the moderation effect of dimensions of organizational commitment on leadership styles results in increased leadership effectiveness among sub-Saharan African employees. Based on cultural cluster homogeneity as offered by the GLOBE study, this study represents sub-Saharan African employers with Nigerian employees. Nigeria was selected within the sub-Saharan cultural cluster because, according to the World Economic Forum (2014) on Africa, Nigeria is sub-Saharan Africa's largest economy and the most populous nation with over 160 million inhabitants. In terms of the general demographics of the selected cultural cluster, the United Nations (n.d.) estimated Nigeria's population in 2015 to be 183.5 million people. This represents the largest population in sub-Saharan Africa with Ethiopia's population a distant second at 90 million people. The World Bank (n.d.) estimated sub-Saharan Africa's population in December 2014 at approximately 973.4 million people. The choice of Nigeria removes the need for translation, as English is Nigeria's official language of communication.

#### **Literature Review**

Possible leadership styles and leadership outcomes have been an area of great interest in leadership literature, particularly since the advent of the Multifactor Leadership Questionnaire (MLQ-5X) over 25 years ago. Response to the interest during this period has seen research outputs on the effects of leadership styles on leadership outcomes that include those of leadership effectiveness and organizational performance. Amirul and Daud (2012), for example, examined the relationship between leadership styles and leadership effectiveness among Malaysian government-linked companies and found that leaders at all organizational levels demonstrate the full range of leadership styles, with transactional leadership being demonstrated the most in Malaysian government-linked companies, followed by transformational leadership, and finally the passive or avoidant leadership. The laissez-faire leadership style, however, negatively correlated with leadership effectiveness.

Barbeschi (2002) posited that the process of forming good organizational relationships requires (a) growing and maintaining good working relationships among individuals who set out to work for a common goal and (b) the individual and collective completion of tasks (p. 45). Barbeschi argued that organizations have both technical and political/cultural dimensions. While the technical dimension includes visible features such as structures, control systems, and procedures, the political/cultural dimension includes features that are intangible but strategic, such as underlying assumptions about the organization's culture, symbols, rituals, games, and myths (p. 46). Following suppositions of the culturally endorsed implicit leadership theory, Javidan et al. (2006) argued that it is a fallacy to assume that because a leader is successful in one country, the same leader will be successful in other countries. Culturally endorsed implicit leadership theory is an extension of the implicit leadership theory as leadership styles considered effective by individuals in organizations may differ on the basis of the set of beliefs that people hold in terms of the attributes, skills, behaviors, and other stereotypes that are accepted as contributing to or impeding outstanding leadership (p. 72). Javidan et al. also reported that the GLOBE study provided convincing evidence to suggest that "people within cultural groups agree in their beliefs about leadership" (p. 73).

#### **Transactional Leadership**

Burns (1978) divided leadership styles into transactional leadership and transforming leadership. Burns explained that while transactional leadership takes place when "one person takes the initiative in making contact with others for the purpose of an exchange of valued things" (p. 19), transforming leadership occurs when "one or more persons engage with each other in such a way that leaders and followers raise one another to higher levels of motivation and morality" (p. 20). Burns opined that while leaders may be born, leadership behavior could also be learned because great leaders are not only able to teach their followers, but great teachers are able to lead others; thus, they "treat students neither coercively nor instrumentally but are joint seekers of the truth and mutual actualization" (p. 449). According to Bass (1985), it is impossible to attribute the way people behave only to a simple performance-reward relationship or cost-benefit formulation as it appears there are unconventional variables found only in excellently run organizations, which influence the behavior of people in those organizations. Bass (1985) explained that while leaders of traditional organizations set goals, monitor, and reward performance, leaders of exceptional organizations do not; rather, they inspire employees to transcend themselves and do more

than is required of them. Bass (1985) posited that transformational leadership was made up of four factors: charisma or idealized influence, inspirational leadership, individualized consideration, and intellectual stimulation.

Lewin et al. (1939) introduced the laissez-faire leadership dimension alongside authoritarian and democratic leadership. While these three leadership styles are associated with traditional groups and organizations, the authors pointed out that with laissez-faire leadership, there is "complete freedom for group or individual decision, without any leader participation" (p. 273). Lewin et al. (1939) further reported that laissez-faire leaders make it clear to followers from the outset that they would provide infrequent comments on workrelated activities unless questioned (i.e., information is supplied to followers only if and when followers specifically ask the leaders; p. 273). Starting with laissez-faire leadership, then transactional leadership, and, finally, transformational leadership, Bass and Avolio (1994) presented the full range of leadership styles in the form of a continuum. The mechanism for the transformational leadership style to produce better outcomes compared to the transactional leadership style, they asserted, was attributed to what they termed as *the four I's* (i.e., intellectual stimulation, individualized consideration, idealized influence, and inspirational motivation).

#### **Transformational Leadership**

According to Burns (1978), unlike transactional leadership, transforming leadership has a moral element, as transforming leaders focus on engaging the full person of their followers (p. 4). Burns (1978) categorized transforming leadership into four: (a) intellectual leadership (involving the use of "analytical and normative ideas"; p. 142), (b) revolutionary leadership (leadership to effect complete change of an entire system), (c) reform leadership (moral leadership dealing with the issues of strategy and conflict; p. 170), and (d) heroic leadership (a leader that rises as a solution provider during times of major crisis). Yukl (1999) pointed out that transformational leadership stresses the importance of emotions, ethics, and moral behavior (p. 285). Yukl (2013) argued that as a result of the trust, admiration, loyalty, and respect that followers feel toward their leader, the leader is able to influence and motivate his or her followers, making them mindful of the significance of completing tasks and encouraging them to transcend their own self-interest for that of their organization (p. 286).

Spreitzer et al. (2005) theorized that individuals' traditional or cultural values moderate the relationship between all dimensions of transformational leadership and leadership effectiveness. Spreitzer et al. (2005) suggested that while there is likely to be some degree of cultural value differences in the effectiveness of different dimensions of transformational leadership (p. 221), for Asian and North American leaders, individuals' traditional cultural values moderate the relationship between four (intellectual stimulation, articulating a vision, appropriate role model, and expectations of high performance) out of six specified dimensions of transformational leadership on leadership effectiveness with the two other dimensions being group goals and individualized support (p. 212).

#### **Organizational Commitment**

Meyer and Allen (1991) described organizational commitment as a mindset, feeling, or belief that concerns how employees relate with their organization and their "desire, need, and obligation to remain" (p. 62). The authors introduced a three-component framework with affective commitment referring to the *desire* to remain, continuance commitment

referring to the *need* to stay, and normative commitment referring to the *obligation* to stay. Meyer and Allen (1991) conceded that a drawback of the framework was that while the framework highlights what the major variables associated with the three commitment components were, "the model does not provide a complete summary of existing research findings" (p. 68). Meyer and Allen (1984) argued that organizational commitment is represented more by the continuance commitment dimension and less as affective or emotional commitment. They further argued that employee commitment in general was to allow them to consistently carry on their line of activity, which may be traced to the accumulation of side-bets such as time, effort, and money "that would be lost [to the individuals] if the activity were discontinued [or the individuals leave the organization]" (p. 372). Meyer and Allen (1991) contended that beyond the continuance (need) and affective (desire) commitment dimensions, normative commitment also existed as a third dimension of organizational commitment. The authors defined normative commitment as employees' "obligation to remain with the organization" (p. 66). Meyer and Allen (1984) posited that a common theme among the three approaches to organizational commitment is that commitment is a psychological state and typifies the employee-organization relationship and affects employees' decisions on whether to remain or leave the organization (p. 67).

Allen and Meyer's (1990) correlational analysis demonstrated that constructs of affective commitment and continuance commitment were empirically distinct from one another; however, while affective commitment and normative commitment were also different, their constructs were found to be largely correlated. Referring to Meyer and Allen (1991), Meyer and Allen (1997) reported that rather than view affective, continuance, and normative commitment as types of organizational commitment, it was more appropriate to view them as components, as employee relationship with their organization may be made up of all three elements to different extents (p. 13). Meyer and Allen pointed out that a number of studies have found affective commitment to be strongly correlated with normative commitment. The implication of the correlation, therefore, they suggested, is that "feelings of affective attachment and sense of obligation to an organization are not independent of one another" (p. 122).

Felfe et al. (2008) found the strongest relationship between affective commitment and normative commitment (p. 229). At the individual level, Felfe et al. reported that while there is either no relationship or a negative relation between transformational leadership and continuance commitment, transformational leadership is crucial for developing and maintaining affective and normative organizational commitment in Western countries (p. 218). They reported, "Overall, in collectivistic countries, affective commitment in particular is more meaningful for outcomes than in a western country" (p. 229). They also found evidence to suggest that there is a thin line between affective commitment and normative commitment for employees in collectivistic cultures. Wang et al. (2010) explained that while normative commitment is generally accepted to be one of three dimensions of organizational commitment, results from Allen and Meyer (1990) and Meyer and Allen (1997) suggested that the dimension was interrelated to affective organizational commitment with no significant difference in the two organizational commitment dimensions in terms of organizational outcomes (p. 399). Wang et al. (2010) reported that contract staff was more likely to demonstrate affective commitment to management companies than transferred permanent staff (p. 407). Further, organizational support from

the management company had a significant positive influence on employees' affective and continuance commitment to the management company (pp. 407-408).

# Leadership Effectiveness

Zaccaro et al. (2004) attempted to identify how leaders differed from nonleaders. They posited that the traits theory appeared to be regaining popularity and examined recent research on leader attributes. While the review threw up current controversies on the best way to identify and assess the qualities, traits, and attributes that make for effective leadership, the review was also able to summarize relevant literature conceptually as well as empirically and offer several hypotheses intended to guide further research in this area. Leadership theories discussed by the authors included those of trait-based and situational leadership. According to Carlyle's (1841) suppositions, great men should be given the powers they need and should have as they are heroes who are naturally bestowed with exceptional physical and/or intellectual powers. As these powers are only available to a few, it is the duty of every ordinary man to reverence these great men or heroes. Carlyle (1841) opined that societal progress is not made through the long passage of time but occurs only when willing individuals who have the right temperament are identified as heroes and can lead followers. Hofstede (1980) identified several cultural dimensions that differentiated cultures one from another, including power distance, masculine versus feminine orientation, individualism versus collectivism orientation, uncertainty avoidance, and assertiveness. Hofstede (1980) concluded that societal culture did indeed differ and affected the values of people in the workplace. On the premise that culture is a collective and not an individual characteristic, and using data generated from the administered questionnaires, Hofstede (1980) identified four dimensions that could be used to compare every employee in the different countries. These four dimensions were power distance, uncertainty avoidance, individualism, and masculinity. Thus, Hofstede (1980) concluded that there is no ideal leadership style as national cultures influenced organizational culture.

# Interactive Effect of Organizational Commitment on Transactional and Transformational Leadership

Meyer and Allen (1991) explained that the three dimensions of organizational commitment have one thing in common—commitment is a psychological state that describes the relationship between employees and the organizations they work for; the psychological state subsequently impacts decisions made by employees on whether to remain with their organization or whether to leave (p. 67). Meyer and Allen (1991) asserted that organizational effectiveness was not only a function of a stable workforce but a function of dependable employees who consistently perform their duties over and above role requirements (p. 73). Citing prior studies, the authors reported that organizational commitment has been shown to be positively correlated with variables such as on-the-job behavior, attendance behavior, individual and group-level performance, and employee turnover. On the premise that transactional and transformational leadership styles are moderated by organizational commitment among Nigerian employees to produce effective leadership, the following moderating hypotheses are proposed:



Figure 1: Moderating effect of organizational commitment

#### Analysis

Cohen, Cohen, West, and Aiken (2003) reasoned that if a relationship between independent variable Y with a dependent variable C does not remain constant over different levels of a third variable D, such a relationship is described as having a  $C \times D$  interaction (p. 10). However, if the strength of the relationship between C and Y reduces as the value of D increases, then C is said to be moderated by changes in D (p. 10). According to Cohen et al., using multiple regression/correlation models allows for the computation of different parts of the strength of relationships and permits "statistical hypotheses testing, estimation, construction of confidence levels, and power-analytic procedures (p. 10). In linear models, a set of predictor variables are used to model outcome variable Y such that:

 $Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + ... + \beta_k X_{ki} + e_i$  (1) where  $Y_i$  is the dependent variable,  $\beta_0$  is the intercept,  $\beta_1$  to  $\beta_k$  are the vectors of coefficients,  $X_{1i}$  to  $X_{ki}$  are the vectors of explanatory variables of *i* at a point in time, and  $e_i$  in the model is the residual error term that captures any variations in the model that cannot be attributed to independent variables used in the model. According to Cohen, et al. (2003), moderation analysis requires the use of multiple regression analysis. This is done by adding a third term *M* to the multiple regression model that is meant to regress independent variable *X* on dependent variables *Y*. The moderation effect is specified by the interaction of *X* and *M* in explaining *Y*. Thus:

 $Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 m + \beta_4 (x m) + e$  (2) In this case, while  $x_1$  represents the control variable, the role of M as a moderating variable is accomplished by estimating the parameter  $\beta_4$ , which is the estimate for the interaction term. Note that because of the interaction between independent variable X and moderating variable M, a new interaction variable is formed; in other words, the interaction term is the product of the two main effects. This was used to test the moderation effect.

#### Method

Hair, Black, Babin, and Anderson (2010) recommended that for a representative sample to be generalizable, there should be between 15 to 20 observations or respondents for every independent variable in the multiple regression model (p. 171). The three dimensions of transactional leadership and five dimensions of transformational leadership were treated as independent variables. Taking a maximum of 20 respondents per independent variables made up of gender, age, tenure with one's direct supervisor, tenure with the organization, status position in the organization, industry, and level of education. Also, using the maximum of 20 respondents per control variable, a sample size of an additional 120 respondents was required. In total, this study used 300 participants. Data from employees working within five key industries and different companies were collected. To ensure anonymity and confidentiality, the survey was administered electronically.

#### Instrumentation

For independent variables, the study used the Form 5X-Short of the Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1997). The MLQ consists of 45 items that follow a 5point Likert-type scale format (0 = Not at all, 1 = Once in a while, 2 = Sometimes, 3 = Fairly often, and 4 = Frequently, if not always) for rating a broad range of leadership styles ranging from laissez-faire leadership to transactional leadership and transformational leadership. For the moderating variable, the study used the Affective Commitment (AC) and Continuance Commitment (CC) subscales as contained in Meyer and Allen's (1997) Organizational Commitment Scale (OCS). Each of the two subscales contains eight items. According to Meyer, Stanley, et al. (2002), these are the scales most commonly used in empirical studies. The OCS is a self-scoring questionnaire with responses rated using a 5-point Likert scale (0 = strongly disagree and 4 = strongly agree). For the leadership effectiveness dependent variable, Ehrhart and Klein's (2001) Leadership Effectiveness Scale was used. The six-item measure requires that respondents think of their leader and state the extent to which the respondents believed they (a) worked at a high level of performance under their leader, (b) enjoyed working for their leader, (c) got along well with their leader, (d) found the leadership style of the leader compatible with their own, (e) admired their leader, and (f) felt this leader was similar to their ideal leader. Similar to other scales used in this study, the responses were on a Likert-type scale (1 = little or no extent to 5 = a great extent).

Seven control variables were included in the analysis, these included gender, age, tenure with one's direct supervisor, tenure with organization, status or position in the organization, industry, and level of education. Gender was dummy-coded with 0 = female and 1 = male. Data on the actual age and tenure with supervisor were collected as scale variables so that they are made readily available for our analysis. Status position in the organization was collected based on the following hierarchy: nonmanagerial employees, unit heads, departmental managers, and senior managers. Industry data were collected in the following categories: commercial, financial, educational, manufacturing, and services. These were all dummy-coded as 1 or 0 for each of five categories. Data on level of education was coded from 1 to 6 based on the level of formal education attained with high school diploma (1), associate degree (2), bachelor's degree (3), master's degree (4), postgraduate degree (5), and doctorate degree (6).

# **Data Collection Procedures**

For anonymity and confidentiality of the surveys administered, a SurveyMonkey form was administered electronically to participants. To administer the questionnaire, an email notification system was used and reminders were also sent to those yet to respond to the survey. The LinkedIn platform provides a functionality that allows electronic mails to be sent to any member of the network selected. In addition, only chartered accountants admitted to the forum by its administrator can send emails to other members in the forum. Thus, emails sent by members of the forum to icanprofessionals@yahoogroups.com are electronically delivered to the 4,000+ members of the group.

SPSS Version 21 was used to facilitate hierarchical multivariate analyses. Hierarchical regression refers to a simple ordinary least-square regression technique that allows independent variables to be entered into the analysis in a sequential order based on theory and the outcome of prior research rather than computer algorithms, as is the case with stepwise regression (Kerlinger, 1986). This approach is particularly useful when there is a requirement to identify increments in explained variances or a requirement to explain or evaluate changes in regression coefficients. This is different from stepwise regression analysis, where models are automatically built by successively adding or removing variables based on the *t* statistics of their estimated coefficients.

#### **Results**

The survey instruments were administered to participants between March 25 and May 25, 2016.

Industry	Response %	Response count
Commercial	3.0	7
Financial	45.8	108
Education	7.2	17
Services	37.7	89
Manufacturing	6.4	15
Total	100.0	236

Table 1: Full-Scale Field Testing Participants by Industry

#### **Response Rates**

Of the 300 participants surveyed, 236 submitted responses to the survey, representing a response rate of 78.33%. Out of the 236 responses received, 228 were deemed usable as data for all sections were provided, representing approximately 96.6% of submitted responses and 76% of the target 300 sample size. Eight responses were excluded as they contained missing data from one or more of the survey sections, representing approximately 3.4% of returned responses. As a result, 228 responses were used for our analysis.

#### Demographic Overview

Demographic data of the target population collected included those of gender, age, education, status in the organization, length of time working with current supervisor, and length of time working for organization (Table 2).

Variable	%	n
Age		
Under 21 years of age	0.4	1
21-29 years of age	98	23
30-39 years of age	28.4	67
40-49 years of age	50.0	118
50-59 years of age	10-6	25
60 years of age or older	0.9	2
Education		
High school graduate	0.4	1
Associate's degree	0.4	1
Bachelor's degree	23.3	55
Master's degree	64.4	152
Postgraduate	6.0	14
Doctorate degree	5.5	13
Gender		
Male	73.6	174
Female	26.4	62
Status in organization		
Nonmanagerial	20.8	49
Unit head	24.2	57
Departmental head	19.9	47
Senior management	35.2	83
Length of time working with current sup	ervisor	
Less than 6 months	11.0	26
6 months-1 year	15.7	37
1-2 years	21.2	50
More than 2 years	52.1	123
Length of time working with current orga	anization	4.0
Less than 6 months	6.8	16
6 months-1 year	8.1	19
1-2 years	12.7	30
More than 2 years	72.5	1/1

Table 2: Demographic Characteristics of Participants (N = 236)

# Analysis

It was observed early in the hierarchical regression process that the seven control variables were too many to be controlled all at once. All categorical control variables were, therefore, limited to two categories since regression treats variables as scale. Because of concerns about the number of control variables, two regression models were run: (a) control variables gender, position (nonmanagerial/managerial) and education and (b) the independent variables were added. Thus, gender was coded as 0 and 1 and job status was divided into two categories (nonmanagerial and managerial) and coded as 0 and 1.

#### *Testing Hypothesis* 1<sub>*a*</sub>

Hypothesis  $1_a$  stated that affective commitment among sub-Saharan African employees moderates the relations between contingent rewards and leadership effectiveness. Sharma, Durand, and Gur-Arie (1981) explained that a moderator variable is "one which systematically modifies either the form and/or strength of the relationship between a predictor and a criterion variable" (p. 291). This implies that moderator variables are able to affect the direction and/or power of modal relationships. Given the proposition stated in Hypothesis  $1_a$ , the affective commitment variable was applied (as a moderator) to the relationship between contingent rewards (as the predictor variable) and leadership effectiveness (as the dependent variable) with the expectation that a positive moderator variable strengthens the relationship between the independent variable and dependent variable. Hypothesis  $1_a$  (and other hypotheses onwards) is reported in four hierarchies (i.e., control variables, moderating variables, interaction variables, and significant variables, respectively). Note that for all models specified, N = 228. \* p < .05. \*\*p < .01.

To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 1). The control variables explained 1% of the total variance in leadership effectiveness, F(3), 224) = 1.67, p > .05 with only the gender control variable being statistically significant at p < .05 (Model 1). In the second block, the moderating variable AFFECTCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between contingent rewards and leadership effectiveness. Total variance explained by the model was 1%, F(5, 222) = 1.41, p > .05 (Model 2). None of the control, independent, and moderating variables were statistically significant. Overall, the model was not statistically significant, and there was no change as a result of moderation. The interaction variables were computed as the product of the independent variable (contingent rewards) and the moderator (affective commitment). The total variance explained by the model was 2%, F(6, 221) = 1.63, p > .05(Model 3). Only gender was approximately statistically significant (b = -.32, p = .053). All nonstatistically significant independent variables were removed to create Model 4 with the gender control variable remaining the only statistically significant variable in the model. The total variance explained by the model was 2%, F(2 225) = 3.17, p < .05 (Model 4). As a result, Hypothesis  $1_a$  is not supported.

#### Testing Hypothesis 1<sub>b</sub>

Hypothesis  $1_b$  stated that affective commitment among Sub-Saharan African employees moderates the relations between management-by-exception (active) and leadership effectiveness. Affective commitment variable was applied (as a moderator) to the relationship between management-by-exception (active) and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between the management-by-exception (active) variable and the leadership effectiveness variable. To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 5). The control variables explained 1% of the total variance in leadership effectiveness, F(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p < .05 (Models 5 - 8). In the second block, the moderating variable AFFECTCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between management-by-exception (active) and leadership

effectiveness. Total variance explained by the model was 1%, F(5, 222) = 1.11, p > .05 (Model 6). None of the control, independent, and moderating variables were statistically significant; overall, the model was not statistically significant and there was no change as a result of moderation. The interaction variables were computed as the product of the independent variable (management-by-exception [active]) and the moderating variables (affective commitment). However, there was no increase in the total variance explained by Model 7 after all variables were subsequently added in the second block, F(6, 221) = 1.06, p > .05. Only the gender control variable was statistically significant with its coefficient indicating that it is inversely related to leadership effectiveness (b = -.33, p = .049). All nonstatistically significant independent variables were removed to create Model 8 with the gender control variable remaining the only statistically significant variable in the model. The total variance explained by the model was 2%, F(1, 226) = 4.97, p < .05 (Model 8). As a result, Hypothesis 1<sub>b</sub>, is not supported.

		M	odel 1		$\frac{\text{Model 2 (MOD)}}{\text{B} SE h Sig (n)}$					Mo	odel 3		Model 4			
Variable	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )
Constant	4.18	0.74		0	4.33	0.94		0	2.04	1.68		0.225	3.71	0.3		0
Gender	-0.34	0.16	-0.2	.035*	-0.3	0.17	-0.1	0.071	-0.32	0.17	-0.14	.053*	-0.33	0.2	-0.1	.037*
Education	-0.19	0.74	-0	0.802	-0.23	0.75	-0	0.76	-0.32	0.74	-0.03	0.673				
Status	-0.02	0.17	-0	0.913	-0.02	0.17	-0	0.902	-0.02	0.17	-0.01	0.909				
ContRewd					0.11	0.09	0.09	0.206	1.06	0.59	0.84	0.071				
AffectCom mit					-0.15	0.18	-0.1	0.411	0.65	0.52	0.25	0.208				
ContRwdX Affect									-0.32	0.19	-0.86	0.101				
$\Delta R^2$	0.01				0.01				0.02				0.02			
F	1.67				1.41				1.63				3.17*			
df	3/224				5/222				6/221				2/225			
$\Delta R^2$	0.02				0.01				0.01							

		M	odel 5		Model 6		6 (MOD)		Model					Μ	odel 8	
Variable	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )
Constant	4.18	0.74		0	4.49	0.94		0	5.62	1.58		0	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.32	0.17	-0.1	0.055	-0.33	0.17	-0.14	.049*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.25	0.75	-0	0.742	-0.3	0.75	-0.03	0.687				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	0	0.975	-0.02	0.18	-0.01	0.901				
MgtbyExA ctive					0.03	0.08	0.03	0.689	0.44	0.53	-0.39	0.41				
AffectCom mit					-0.11	0.18	-0	0.526	-0.47	0.44	-0.18	0.285				
ActiveXAf fect									0.16	0.17	0.44	0.374				
$\Delta R^2$	0.01				0.01				0				0.02			
F	1.67				1.11				1.06				4.97*			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0				0				-0.01			

#### *Testing Hypothesis* 1<sub>c</sub>

Hypothesis 1<sub>c</sub>, stated that affective commitment among sub-Saharan African employees moderates the relations between management-by-exception (passive) and leadership effectiveness. Affective commitment variable was applied (as a moderating variable) to the relationship between management-by-exception (passive) and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between management-by-exception (passive) variable and leadership effectiveness variable. To test these relationships, all control variables were first entered as independent variables in the first block, with leadership effectiveness entered in as the dependent variable (Model 9). The control variables explained 1% of the total variance in leadership effectiveness, *F*(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p < .05.

In the second block, the moderating variable AFFECTCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between management-by-exception (passive) and leadership effectiveness. Total variance explained by the model was 1%, F(5, 222) = 1.55, p > .05 (Model 10). With the exception of the gender control variable, none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation explained 1% of the total variance in leadership effectiveness; overall, however, the model was not statistically significant.

The interaction variables were computed as the product of the independent variable (management-by-exception [passive]) and the moderating variables (affective commitment). The total variance explained by Model 11 was 1%. Only the gender control variable was statistically significant with its coefficient indicating that it is inversely related to leadership effectiveness (b = -.32, p = .054). All nonstatistically significant independent variables were removed to create Model 12 with the gender control variable remaining statistically significant in the model (b = -.33, p = .034). The total variance explained by the model was 3%, *F*(3, 224) = 3.08, p < .05 (Model 30). As a result, Hypothesis 1<sub>c</sub> is not supported.

# *Testing Hypothesis 2<sub>a</sub>*

Hypothesis 2<sub>a</sub> stated that continuance commitment among sub-Saharan African employees moderates the relations between contingent rewards and leadership effectiveness. Continuance commitment variable was applied (as a moderating variable) to the relationship between contingent rewards and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between contingent rewards variable and leadership effectiveness variable.

To test these relationships, all control variables were first entered as independent variables in the first block, with leadership effectiveness entered in as the dependent variable (Model 13). The control variables explained 1% of the total variance in leadership effectiveness, F(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p < .05, (b = .34, p = .035).

In the second block, the moderating variable CONTINUCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between contingent rewards and leadership effectiveness. Total variance explained by the model was 1%, *F*(5, 222) = 1.64, *p* > .05 (Model 14). With the exception of the gender control variable, which was statistically

significant at  $p \approx .05$ , (b = ..32, p = .053), none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation explained 1% of the total variance in leadership effectiveness; overall, however, the model was not statistically significant. The interaction variables were computed as the product of the independent variable (contingent rewards) and the moderating variables (continuance commitment).

The total variance explained by Model 15 was 1%. Only the gender control variable was statistically significant at  $p \approx .05$ , with its coefficient indicating that it is inversely related to leadership effectiveness (b = -.32, p = .054). All nonstatistically significant independent variables were removed to create Model 16 with the gender control variable remaining statistically significant in the model (b = -.34, p = .027). The total variance explained by the model was 2%, *F*(1, 226) = 3.08, p < .05 (see Model 16). As a result, Hypothesis 2<sub>a</sub> is not supported.

#### *Testing Hypothesis 2*<sub>b</sub>

Hypothesis  $2_b$  stated that continuance commitment among sub-Saharan African employees moderates the relations between management-by-exception (active) and leadership effectiveness. The continuance commitment variable was applied (as a moderating variable) to the relationship between management-by-exception (active) and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between management-by-exception (active) variable and leadership effectiveness variable.

To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 17). The control variables explained 1% of the total variance in leadership effectiveness, *F*(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p< .05 (b = -.34, p = .035). In the second block, the moderating variable CONTINUCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between management-by-exception (active) and leadership effectiveness. Total variance explained by the model was 1%, *F*(5, 222) = 1.64, p > .05 (Model 18). With the exception of the gender control variable, which was statistically significant at p = .05 (b = -.32, p = .035), none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation explained 1% of the total variance in leadership effectiveness; overall, however, the model was not statistically significant.

The interaction variables were computed as the product of the independent variable (management-by-exception [active]) and the moderating variables (continuance commitment). The total variance explained by Model 19 was 1%. Only the gender control variable was statistically significant at  $p \approx .05$  with its coefficient indicating that it is inversely related to leadership effectiveness (b = -.32, p = .055). All nonstatistically significant independent variables were removed to create Model 38 with the gender control variable remaining statistically significant in the model (b = -.34, p = .027). The total variance explained by the model was 2%, F(1, 226) = 4.97, p > .05 (Model 20). As a result, Hypothesis 2<sub>b</sub>, is not supported.

	[	М	odel 9		N	lodel 1	0 (MC	DD)		Mo	del 11	•	[	Mo	odel 12	!
Variable	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )
Constant	4.18	0.74		0	4.33	0.94		0	3.91	1.34		0	3.44	0.3		0
Gender	-0.34	0.16	-0.2	.035*	-0.3	0.16	-0.1	.052*	-0.32	0.17	-0.14	.054*	-0.33	0.2	-0.1	.034*
Education	-0.19	0.74	-0	0.802	-0.24	0.74	-0	0.744	-0.23	0.75	-0.02	0.754				
Status	-0.02	0.17	-0	0.913	0.14	0.17	0.01	0.935	0.02	0.17	0.01	0.907				
MgtbyExP assive					0.12	0.08	0.1	0.13	0.4	0.61	0.33	0.506				
AffectCom					-0.1	0.18	-0	0.582	0.04	0.35	0.02	0.9				
PassiveXA ffect									-0.09	0.2	-0.23	0.642				
$\Delta R^2$	0.01				0.01				0.01				0.03			
F	1.67				1 55				1 32				3 08*			
1 df	3/224				5/222				6/221				3/224			
$\Lambda P^2$	0.02				0.01				0,221				0.01			
	0.02	Mo	dal 13		0.01 M	odal 1	4 MC	וחו	0	Mo	dol 15		0.01		dal 16	
Variable	в	SF	h	Sig (n)	B	SF	+ (MC	Sig(n)	В	SE	h h	Sig(n)	B	SE	h	$\sum_{n=1}^{n}$
Constant	/ 18	0.74	υ	51g. ( <i>p</i> )	3 17	0.83	υ	51g. ( <i>p</i> )	3.5	1.32	υ	0.01	3 00	0.1	U	51g. ( <i>p</i> )
Condor	0.34	0.14	0.2	035*	0.32	0.85	0.1	053*	0.32	0.16	0.13	0.01	0.34	0.1	0.2	027*
Education	0.10	0.10	-0.2	0.802	-0.52	0.74	-0.1	0.000	-0.32	0.10	-0.13	0.824	-0.34	0.2	-0.2	.027
Education	-0.19	0.74	-0	0.002	-0.17	0.74	-0	0.823	-0.17	0.14	-0.02	0.024				
Status Cont Donal	-0.02	0.17	-0	0.915	-0.02	0.17	-0	0.91	-0.02	0.17	-0.01	0.911				
Contrewa					0.08	0.09	0.06	0.344	0.09	0.35	0.07	0.81				
ContinuCo					0.14	0.11	0.09	0.179	0.15	0.35	0.09	0.673				
ContiRXC																
ontinu									0	0.12	0	0.991				
$\Lambda R^2$	0.01				0.01				0.01				0.02			
F	1.67				1 64				1 36				4 97*			
df	3/224				5/222				6/221				1/226			
$\Delta D^2$	0.02				0.01				0/221				0.01			
Δκ	0.02	М-	1-1-17		0.01	- 1-1 1	0 010		0	М-	1-1-10		-0.01	М	4-1-20	
x 7 · 1 1	D			<b>G</b> : ( )	M		8 (MC	) (U	D	MO		<b>G</b> : ( )	D			<u> </u>
Variable	B	SE	b	Sig. (p)	B	SE	b	Sig. (p)	B	SE	b	Sig. (p)	B	SE	b	Sig. (p)
Constant	4.18	0.74	0.0	025*	3.47	0.83	0.1	052*	3.48	0.84	0.12	0	3.99	0.1	0.0	027*
Gender	-0.34	0.16	-0.2	.035*	-0.32	-0.2	-0.1	.053*	-0.31	0.16	-0.13	.055*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.17	0.74	-0	0.823	-0.17	0.74	-0.02	0.816				
Status	-0.02	0.17	-0	0.913	-0.02	0.17	-0	0.91	-0.02	0.17	-0.01	0.923				
ctive					0.08	0.09	0.06	0.344	0.08	0.09	0.06	0.343				
ContinuCo																
mmit					0.14	0.11	0.09	0.179	0.13	0.13	0.08	0.293				
MgtbyExX									0	0.02	0.01	0 880				
Contin									0	0.02	0.01	0.009				
$\Delta R^2$	0.01				0.01				0.01				0.02			
F	1.67				1.64				1.36				4.97			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0.01				0				0.01			

# **Testing Hypothesis 2**<sub>c</sub>

Hypothesis  $2_c$  stated that continuance commitment among sub-Saharan African employees moderates the relations between management-by-exception (passive) and leadership

effectiveness. Continuance commitment variable was applied (as a moderating variable) to the relationship between management-by-exception (passive) and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between management-by-exception (passive) variable and leadership effectiveness variable.

To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 21). The control variables explained 1% of the total variance in leadership effectiveness, *F*(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p< .05 (b = ..34, p = ..035). In the second block, the moderating variable CONTINUCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between management-by-exception (passive) and leadership effectiveness. Total variance explained by the model was 1%, *F*(5, 222) = 1.64, p > .05 (Model 22). With the exception of the gender control variable, which was statistically significant at  $p \approx .05$  (b = ..32, p = ..053), none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation explained 1% of the total variance in leadership effectiveness; overall, however, the model was not statistically significant.

Interaction variables were computed as the product of the independent variable (management-by-exception [passive]) and the moderating variables (continuance commitment). The total variance explained by Model 23 was 2%. None of variables were statistically significant. While all nonstatistically significant independent variables were removed, the gender variable was used to create Model 42, as it was the closest to statistical significance at p = .062 within Model 23. In Model 24, the gender control variable remained statistically significant in the model (b = ..34, p = .027). The total variance explained by the model was 2%, F(1, 226) = 4.97, p > .05 (Model 24). As a result, Hypothesis 2<sub>c</sub> is not supported.

#### Testing Hypothesis 3<sub>a</sub>

Hypothesis  $3_a$  stated that affective commitment among sub-Saharan African employees moderates the relations between idealized influence (attributed) and leadership effectiveness. Affective commitment variable was applied (as a moderating variable) to the relationship between idealized influence (attributed) and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between idealized influence (attributed) variable and leadership effectiveness variable. To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 25). The control variables explained 1% of the total variance in leadership effectiveness, *F*(3, 224) = 1.67, *p* > .05, with only the gender control variable being statistically significant at *p* < .05 (*b* = -.34, *p* = .035).

In the second block, the moderating variable AFFECTCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between idealized influence (attributed) and leadership effectiveness. There was no change in total variance explained by the model with *F*(5, 222) = 1.64, p > .05 (Model 26). With the exception of the gender control variable, which was statistically significant at  $p \approx .05$  (b = ..32, p = .051), none of the control, independent, and moderating variables were statistically significant. The additional

variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant.

The interaction variables were computed as the product of the independent variable (idealized influence [attributed]) and the moderating variables (affective commitment). The total variance explained by Model 27 was 1%. Only the gender variable was statistically significant at p < .05 (b = -.34, p = .039). All nonstatistically significant independent variables were removed with the gender variable used to create Model 28. In Model 28, the gender control variable remained statistically significant in the model (b = -.34, p = .027). The total variance explained by the model was 2%, F(1, 226) = 4.97, p > .05 (Model 28). As a result, Hypothesis 3<sub>a</sub> is not supported.

#### *Testing Hypothesis 3*<sub>b</sub>

Hypothesis  $3_b$  stated that affective commitment among sub-Saharan African employees moderates the relations between idealized influence (behavior) and leadership effectiveness. Affective commitment variable was applied (as a moderating variable) to the relationship between idealized influence (behavior) and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between idealized influence (behavior) variable and leadership effectiveness variable. To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 29).

The control variables explained 1% of the total variance in leadership effectiveness, *F*(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p < .05 (b = ..34, p = .035). In the second block, the moderating variable AFFECTCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between idealized influence (behavior) and leadership effectiveness. There was no change in total variance explained by the model with *F*(5, 222) = 1.08, p > .05 (Model 30). With the exception of the gender control variable, which was statistically significant at  $p \approx .05$  (b = ..32, p = .051), none of the control, independent, and moderating variables were statistically significant.

The additional variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant. The interaction variables were computed as the product of the independent variable (idealized influence [behavior]) and the moderating variables (affective commitment). There was no change in total variance explained by Model 31 with *F*(6, 221) = .94, p > .05 (Model 31). Only the gender variable was statistically significant at p < .05 (b = -.33, p = .048). All nonstatistically significant independent variables were removed with the gender variable used to create Model 32 In Model 32, the gender control variable remained statistically significant in the model (b = -.34, p = .027). The total variance explained by the model was 2%, *F*(1, 226) = 4.97, p > .05 (Model 32). As a result, Hypothesis 3<sub>b</sub> is not supported.

		Mo	del 21		M	lodel 2	2 (MC	)D)		Mo	del 23	•		Mo	odel 24	
Variable	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. (p)	В	SE	b	Sig. ( <i>p</i> )
Constant	4.18	0.74		0	3.47	0.83		0	3.48	0.83		0	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.32	-0.2	-0.1	.053*	-0.3	0.16	-0.13	0.062	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.17	0.74	-0	0.823	-0.19	0.74	-0.02	0.799				
Status	-0.02	0.17	-0	0.913	-0.02	0.17	-0	0.91	-0.01	0.17	0	0.973				
MgtbyExP					0.00	0.00	0.07			0.00	0.00					
assive					0.08	0.09	0.06	0.344	0.11	0.09	0.09	0.2				
ContinuCo					0.14	0.11	0.00	0.170	0.09	0.11	0.05	0.465				
mmit					0.14	0.11	0.09	0.179	0.08	0.11	0.05	0.405				
MgtbyExX									0.04	0.03	0.1	0.154				
Contin									0.04	0.05	0.1	0.154				
$\Delta R^2$	0.01				0.01				0.02				0.02			
F	1.67				1.64				1.71				4.97			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0.01				0.01				0.02			
		Mo	del 25		М	lodel 2	6 (MC	DD)		Mo	del 27			Mo	odel 28	
Variable	В	SE	b	Sig. (p)	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. (p)	В	SE	b	Sig. ( <i>p</i> )
Constant	4.18	0.74		0	4.55	0.94		0	2.79	1.58		0.078	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.32	0.17	-0.1	.051*	-0.34	0.17	-0.15	.039*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.23	0.75	-0	0.764	-0.25	0.75	-0.02	0.741				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	-0	0.945	-0.01	0.17	0	0.972				
IdealInflAt					0.01	0.00	0	0.022	0.75	0.55	0.61	0.177				
tr					-0.01	0.08	-0	0.933	-0.75	0.55	-0.61	0.177				
AffectCom					0.11	0.18	0	0.537	0.49	0.47	0.10	0.200				
mit					-0.11	0.18	-0	0.557	-0.49	0.47	0.19	0.299				
AffectXIde									-0.25	0.18	-0.7	0 168				
alize									0.20	0.10	0.7	0.100				
$\Delta R^2$	0.01				0				0.01				0.02			
F	1.67				1.07				1.22				4.97			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0				0.01				0.01			
		Mo	del 29		М	lodel 3	0 (MC	)D)		Mo	del 31			Mo	odel 32	
Variable	В	SE	b	Sig. (p)	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. (p)	В	SE	b	Sig. (p)
Constant	4.18	0.74		0	4.52	0.95		0	3.87	1.64		0.019	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.32	0.17	-0.1	.051*	-0.33	0.17	-0.14	.048*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.22	0.75	-0	0.766	-0.25	0.75	-0.02	0.743				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	0	0.948	-0.01	0.17	0	0.95				
IdealInflBe																
hav					0.01	0.09	0.01	0.896	0.29	0.57	0.22	0.617				
AffectCom					0.12	0.18	0.1	0.512	0.11	0.40	0.04	0.921				
mit					-0.12	0.18	-0.1	0.512	0.11	0.49	0.04	0.831				
AffectXIde									-0.09	0 19	-0.25	0.627				
alize									-0.09	0.19	.0.25	0.027				
$\Delta R^2$	0.01				0				0				0.02			
F	1.67				1.08				0.94				4.97*			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0				0				0			

#### *Testing Hypothesis 3c*

Hypothesis  $3_c$  stated that affective commitment among Sub-Saharan African employees moderates the relations between inspirational motivation and leadership effectiveness. Affective commitment variable was applied (as a moderating variable) to the relationship between inspirational motivation and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between inspirational motivation variable and leadership effectiveness variable.

To test these relationships, all control variables were first entered as independent variables in the first block, with leadership effectiveness entered in as the dependent variable (Model 33). The control variables explained 1% of the total variance in leadership effectiveness, *F*(3,

224) = 1.67, p > .05, with only the gender control variable being statistically significant at p < .05 (b = ..34, p = .035). In the second block, the moderating variable AFFECTCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between inspirational motivation and leadership effectiveness. There was no change in total variance explained by the model with F(5, 222) = 1.08, p > .05 (Model 34). With the exception of the gender control variable, which was statistically significant at b = ..32, p = .050, none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant.

The interaction variables were computed as the product of the independent variable (inspirational motivation) and the moderating variables (affective commitment). There was no change in total variance explained by Model 31 with *F*(6, 221) = .94, p > .05 (Model 35). Only the gender variable was statistically significant (b = ..33, p = .050). All nonstatistically significant independent variables were removed with the gender variable used to create Model 36. In Model 36, the gender control variable remained statistically significant in the model (b = ..34, p = .027). The total variance explained by the model was 2%, *F*(1, 226) = 4.97, p < .05 (Model 36). As a result, Hypothesis 3<sub>c</sub> is not supported.

#### *Testing Hypothesis 3*<sub>d</sub>

Hypothesis  $3_d$  stated that affective commitment among Sub-Saharan African employees moderates the relations between intellectual stimulation and leadership effectiveness. Affective commitment variable was applied (as a moderating variable) to the relationship between intellectual stimulation and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between intellectual stimulation variable and leadership effectiveness variable.

To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 37). The control variables explained 1% of the total variance in leadership effectiveness, *F*(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p < .05 (b = -.34, p = .035). In the second block, the moderating variable AFFECTCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between inspirational motivation and leadership effectiveness.

There was no change in total variance explained by the model with F(5, 222) = 1.08, p > .05 (Model 38). With the exception of the gender control variable, which was statistically significant at (b = -.33, p = .051), none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant.

The interaction variables were computed as the product of the independent variable (inspirational motivation) and the moderating variables (affective commitment). There was no change in total variance explained by Model 31 with *F*(6, 221) = .93, p > .05 (Model 39). Only the gender variable was statistically significant (b = ..33, p = ..048). All nonstatistically significant independent variables were removed with the gender variable used to create Model 40. In Model 40, the gender control variable remained statistically significant in the

model (b = -.34, p = .027). The total variance explained by the model was 2%, F(1, 226) = 4.97, p < .05 (Model 40). As a result, Hypothesis 3<sub>d</sub> is not supported.

#### Testing Hypothesis 3<sub>e</sub>

Hypothesis  $3_e$  stated that affective commitment among Sub-Saharan African employees moderates the relations between individualized consideration and leadership effectiveness. Affective commitment variable was applied (as a moderator) to the relationship between individualized consideration and leadership effectiveness with the expectation that a positive affective commitment variable strengthens the relationship between individualized consideration variable and leadership effectiveness variable.

To test these, all control variables were first entered as independent variables in the first bloc, with leadership effectiveness entered in as the dependent variable (Model 41). The control variables explained 1% of the total variance in leadership effectiveness, F(3, 224) = 1.67, p > .05, with only gender being statistically significant at p < .05 (b = -.34, p = .035). In the second block, the moderating variable AFFECTCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between individualized consideration and leadership effectiveness.

There was no change in total variance explained by the model with F(5, 222) = 1.43, p > .05 (Model 42). With the exception of the gender control variable, which was statistically significant at (b = ..32, p = .054), none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant.

		Mo	del 33	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	M	odel 3-	4 (MC	)D)		Mo	del 35			Mo	del 36	6
Variable	В	ŚĔ	Ь	Sig. (p)	В	SE	Ь	Sig (p)	В	SE	b	Sig. (p)	В	\$E	ь	Sig. (p)
Constant	4.18	0.74		0	4.57	0.95		0	4.34	1.72		0.012	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.33	0.17	-0.1	.050*	-0.33	0.17	-0.14	.050*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.23	0.75	-0	0.761	-0.24	0.75	-0.02	0.754				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	-0	0.938	-0.02	0.17	-0.01	0.932				
Inspiration alMo					-0.01	0.08	-0	0.883	0.08	0.58	0.07	0.891				
AffectCom mit					-0.01	0.18	-0	0.541	-0.03	0.53	-0.01	0.953				
AffectXIns pira									-0.03	0.19	-0.09	0.873				
$\Delta R^2$	0.01				0				0				0.02			
F	1.67				1.08				0.9				4.97*			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0				0				0.02			
		Mo	del 37		М	iodel 3	8 (MC	)D)		Mo	del 39			Mo	del 40	Q. ()
Variable	В	SE	Ь	Sig. (p)	в	SE	b	Sig. (p)	В	SE	b	Sig. (p)	В	SE	Ь	Sig. (p)
Constant	4.18	0.74		0	4.55	0.95		0	3.91	1,72		0.024	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.33	0.17	-0.1	.051*	-0.33	0.17	-0.14	.048*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.23	0.75	-0	0.763	-0.25	0.75	-0.02	0.745				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	-0	0.942	-0.02	0.17	-0.01	0.933				
Intellectual Stimu					-0.01	0.09	-0	0.982	0.28	0.64	0.21	0.662				
AffectCom mit					-0.11	0.18	-0	0.524	-0.1	0.52	0.04	0.842				
AffectXInt ellect									-0.09	0.21	-0.23	0.656				
$\Delta R^2$	0.01				0				0				0.02			
F	1.67				1.08				0.93				4.97*			

The interaction variables were computed as the product of the independent variable (individualized consideration) and the moderating variables (affective commitment). The total variance explained by Model 43 was 1%, with *F*(6, 221) = 1.20, p > .05 (Model 43). While all nonstatistically significant independent variables were removed, the gender variable was used to create Model 44 as it was the closest to statistical significance at p = .060 within Model 43. In Model 44, the gender control variable remained statistically significant in the model (b = ..34, p = .027). The total variance explained by the model was 2%, *F*(1, 226) = 4.97, p < .05 (Model 44). As a result, Hypothesis 3<sub>e</sub> is not supported.

		Мо	del 41		М	lodel 4	2 (MC	DD)		Мо	del 43			Mo	odel 44	
Variable	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )
Constant	4.18	0.74		0	4.67	0.93		0	4.79	1.18		0	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.32	0.16	-0.1	.054*	-0.32	0.17	-0.13	0.06	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.24	0.75	-0	0.749	-0.24	0.75	-0.02	0.755				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	-0	0.963	-0.01	0.17	0	0.962				
Individuali					-0.08	0.08	-0	0.883	-0 14	0 35	-0.16	0 702				
zeCon					0.00	0.00	0	0.000	0.11	0.00	0.10	0.702				
AffectCom					-0.09	0.18	-0	0 541	-0.14	0 34	-0.05	0.677				
mit					0.07	0.10	0	0.541	0.14	0.54	0.05	0.077				
AffectXInd									0.02	0.1	0.08	0.861				
Con									-0.02	-0.1	-0.08	0.001				
$\Delta R^2$	0.01				0.01				0.01				0.02			
F	1.67				1.43				1.2				4.97*			
Df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0.01				0				0			

#### Testing Hypothesis 4<sub>a</sub>

Hypothesis  $4_a$  stated that continuance commitment among Sub-Saharan African employees moderates the relations between idealized influence (attributed) and leadership effectiveness. Affective commitment variable was applied (as a moderating variable) to the relationship between idealized influence (attributed) and leadership effectiveness with the expectation that a positive continuance commitment variable strengthens the relationship between idealized influence (attributed) variable and leadership effectiveness variable.

To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 45). The control variables explained 1% of the total variance in leadership effectiveness, F(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p < .05 (b = -.34, p = .035).

In the second block, the moderating variable CONTINUCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between idealized influence (attributed) and leadership effectiveness. Total variance explained by the model was 1% with *F*(5, 222) = 1.64, p > .05 (Model 46). With the exception of the gender control variable, which was statistically significant at p < .05 (b = -.32, p = .047), none of the control, independent, and moderating variables were statistically significant. The additional variables

and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant. The interaction variables were computed as the product of the independent variable (idealized influence [attributed]) and the moderating variables (continuance commitment). The total variance explained by Model 47 was 1%. Only the gender variable was statistically significant at  $\rho < .05$  (b = ..33,  $\rho = .048$ ). All nonstatistically significant independent variables were removed with the gender variable used to create Model 48. In Model 48, the gender control variable remained statistically significant in the model (b = ..34,  $\rho = .027$ ). The total variance explained by the model was 2%, F(1, 226) = 4.97,  $\rho > .05$  (Model 48). As a result, Hypothesis 4<sub>a</sub> is not supported.

		Mo	del 45		М	lodel 4	6 (MC	)D)		Mo	del 47			Mo	odel 48	
Variable	В	SE	b	Sig. ( <i>p</i> )	в	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. ( <i>p</i> )
Constant	4.18	0.74		0	3.73	0.83		0	3.58	1.33		0.007	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.32	0.16	-0.1	.047*	-0.33	0.16	-0.14	.048*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.17	0.74	-0	0.818	-0.17	0.74	-0.02	0.823				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	0	0.978	-0.01	0.17	0	0.975				
Idealizednf					-0.04	0.08	-0	0.671	0.01	0.36	0.01	0.969				
luence					-0.04	0.00	-0	0.071	0.01	0.50	0.01	0.707				
ContinuCo					0.17	0.11	0.1	0.122	0.21	0.36	-0.13	0.55				
mmit																
ContinuXA									-0.02	0.12	-0.05	0.888				
ttrrib																
$\Delta R^2$	0.01				0.01				0.01				0.02			
F	1.67				1.49				1.24				4.97*			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0.01				0				-0.01			

#### Testing Hypothesis 4<sub>b</sub>

Hypothesis  $4_b$  stated that continuance commitment among Sub-Saharan African employees moderates the relations between idealized influence (behavior) and leadership effectiveness. Affective commitment variable was applied (as a moderating variable) to the relationship between idealized influence (behavior) and leadership effectiveness with the expectation that a positive continuance commitment variable strengthens the relationship between idealized influence (behavior) variable and leadership effectiveness variable.

To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 49). The control variables explained 1% of the total variance in leadership effectiveness, *F*(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p< .05 (b = .34, p = .035). In the second block, the moderating variable CONTINUCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between idealized influence (behavior) and leadership effectiveness. Total variance explained by the model was 1% with *F*(5, 222) = 1.47, p > .05 (Model 50). With the exception of the gender control variable, which was statistically significant at p < .05 (b = .32, p = .047), none of the control, independent, and moderating variables were statistically significant.

The additional variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant. The interaction variables were computed as the product of the independent variable (idealized influence [behavior]) and the moderating variables (continuance

commitment). The total variance explained by Model 51 was 1%, with *F*(6, 221) = 1.22, *p* > .05 (Model 51). Only the gender variable was statistically significant at *p* < .05 (*b* = -.33, *p* = .047). All nonstatistically significant independent variables were removed with the gender variable used to create Model 52. In Model 52, the gender control variable remained statistically significant in the model (*b* = -.34, *p* = .027). The total variance explained by the model was 2%, *F*(1, 226) = 4.97, *p* < .05 (Model 52). As a result, Hypothesis 4<sub>b</sub> is not supported.

#### *Testing Hypothesis* 4<sub>c</sub>

Hypothesis 4<sub>c</sub> stated that continuance commitment among Sub-Saharan African employees moderates the relations between inspirational motivation and leadership effectiveness. Continuance commitment variable was applied (as a moderating variable) to the relationship between inspirational motivation and leadership effectiveness with the expectation that a positive continuance commitment variable strengthens the relationship between inspirational motivation variable and leadership effectiveness variable. To test these, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 53). The control variables explained 1% of the total variance in leadership effectiveness, *F*(3, 224) = 1.67, *p* > .05, with only gender being statistically significant at *p* < .05 (*b* = -.34, *p* = .035). In the second block, the moderating variable CONTINUCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between inspirational motivation and leadership effectiveness.

There was no change in total variance explained by the model with F(5, 222) = 1.95, p > .05 (Model 54). With the exception of the gender control variable, which was statistically significant at (b = -.33, p = .044), none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant.

The interaction variables were computed as the product of the independent variable (inspirational motivation) and the moderating variables (continuance commitment). There was no change in total variance explained by Model 55 with *F*(6, 221) = 1.294, p > .05 (Model 55). Only the gender variable was statistically significant (b = -.33, p = .043). All nonstatistically significant independent variables were removed with the gender variable used to create Model 56. In Model 56, the gender control variable remained statistically significant in the model (b = -.34, p = .027). The total variance explained by the model was 2%, *F*(1, 226) = 4.97, p < .05 (Model 56). As a result, Hypothesis 4<sub>c</sub> is not supported.

#### *Testing Hypothesis* 4<sub>d</sub>

Hypothesis  $4_d$  stated that continuance commitment among Sub-Saharan African employees moderates the relations between intellectual stimulation and leadership effectiveness. Continuance commitment variable was applied (as a moderating variable) to the relationship between intellectual stimulation and leadership effectiveness with the expectation that a positive continuance commitment variable strengthens the relationship between intellectual stimulation variable and leadership effectiveness variable. To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 57). The control variables explained 1% of the total variance in leadership effectiveness, F(3, 224) = 1.67, p > .05, with only the gender control variable being statistically significant at p < .05 (b = -.34, p = .035). In the second block, the moderating variable CONTINUCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between inspirational motivation and leadership effectiveness. The total variance explained by Model 58 was 1% with F(5, 222) = 1.46, p > .05 (Model 58). With the exception of the gender control variable, which was statistically significant (b = -.33, p = .046), none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant.

The interaction variables were computed as the product of the independent variable (inspirational motivation) and the moderating variables (continuance commitment). There was no change in total variance explained by Model 59 with *F*(6, 221) = 1.263, p > .05 (Model 59). Only the gender variable was statistically significant (b = -.33, p = .047). All nonstatistically significant independent variables were removed with the gender variable used to create Model 60. In Model 60, the gender control variable remained statistically significant in the model (b = -.34, p = .027). The total variance explained by the model was 2%, *F*(1, 226) = 4.97, p < .05 (Model 60). As a result, Hypothesis 4<sub>d</sub> is not supported.

#### Testing Hypothesis 4<sub>e</sub>

Hypothesis  $4_e$  stated that continuance commitment among Sub-Saharan African employees moderates the relations between individualized consideration and leadership effectiveness. Continuance commitment variable was applied (as a moderating variable) to the relationship between individualized consideration and leadership effectiveness with the expectation that a positive continuance commitment variable strengthens the relationship between individualized consideration variable and leadership effectiveness variable.

To test these relationships, all control variables were first entered as independent variables in the first block with leadership effectiveness entered in as the dependent variable (Model 61). The control variables explained 1% of the total variance in leadership effectiveness, F(3, 224) = 1.67, p > .05, with only being statistically significant at p < .05 (b = ..34, p = .035). In the second block, the moderator CONTINUCOMMIT was computed and added as another level of the hierarchy to moderate the relationship between individualized consideration and leadership effectiveness. There was no change in total variance explained by the model with F(5, 222) = 1.95, p > .05 (Model 62). With the exception of the gender control variable, which was statistically significant (b = ..32, p = .052), none of the control, independent, and moderating variables were statistically significant. The additional variables and the effect of moderation did not add further variance to the leadership effectiveness variable; overall, however, the model was not statistically significant.

The interaction variables were computed as the product of the independent variable (individualized consideration) and the moderating variables (affective commitment). Total variance explained by Model 63 was 2% with F(6, 221) = 1.20, p > .05 (Model 63). With the exception of the statistically significant gender variable (at p = .050), which was used to create Model 64, all nonstatistically significant independent variables were removed. In

Model 64, the gender control variable remained statistically significant (b = -.34, p = .027). The total variance explained by the model was 2%, F(1, 226) = 4.97, p < .05 (Model 64). As a result, Hypothesis 4<sub>e</sub> is not supported.

		Mo	del 49		М	lodel 5	0 (MC	)D)		Mo	del 51			Mo	odel 52	2
Variable	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. (p)	В	SE	b	Sig. ( <i>p</i> )	в	SE	b	Sig. (p)
Constant	4.18	0.74		0	3.72	0.84		0	3.84	1.42		0.008	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.32	0.16	-0.1	.047*	-0.33	0.16	-0.14	.047*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.18	0.74	-0	0.807	-0.19	0.75	-0.02	0.804				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	-0	0.933	-0.02	0.17	-0.01	0.93				
Idealizednf	0.02	0.117	0	0.710	0.01	0.17		0.700	0.02	0.17	0.01	0.75				
luence					-0.03	0.09	-0	0.778	-0.07	0.39	0.05	0.868				
ContinuCo					0.17	0.11	0.1	0.107	0.12	0.20	0.00	0.75				
mmit					-0.17	0.11	0.1	0.127	0.13	0.39	0.08	0.75				
ContinuXA									0.01	0.13	0.04	0.915				
ttrrib									0.01	0.15	0.04	0.915				
$\Delta R^2$	0.01				0.01				0.01				0.02			
F	1.67				1.47				1.22				4.97*			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0.01				0				-0.01			
		Mo	del 53		М	lodel 5	4 (MC	)D)		Mo	del 55			Mo	odel 56	5
Variable	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. (p)	В	SE	b	Sig. ( <i>p</i> )	В	SE	b	Sig. (p)
Constant	4.18	0.74		0	3.73	0.85		0	4.37	1.35		0.001	3.99	0.1		0
Gender	-0.34	0.16	-0.2	.035*	-0.33	0.16	-0.1	.044*	-0.33	0.16	-0.14	.043*	-0.34	0.2	-0.2	.027*
Education	-0.19	0.74	-0	0.802	-0.18	0.74	-0	0.81	-0.19	0.74	-0.02	0.796				
Status	-0.02	0.17	-0	0.913	-0.01	0.17	-0	0.947	-0.02	0.17	-0.01	0.929				
Inspiration					0.00	0.05	-	0 =	0.00	0.25	0.15	0 = 0 =				
Motiv					-0.02	0.08	-0	0.761	-0.23	0.35	-0.19	0.507				
ContinuCo					0.16	0.11	0.1	0.121	0.06	0.37	0.04	0.00				
mmit					0.10	0.11	0.1	0.131	-0.06	0.57	-0.04	0.88				
ContinuXI									0.07	0.12	0.23	0.542				
nspir									0.07	0.112	0.20	0.0.12				
$\Delta R^2$	0.01				0.01				0.01				0.02			
F	1.67				1.47				1.29				4.97*			
df	3/224				5/222				6/221				1/226			
$\Delta R^2$	0.02				0.01				0				0.01			
-																
		Mo	del 57		М	lodel 5	8 (MC	D)		Mo	del 59			Mo	odel 60	)
Variable	В	Mo SE	del 57 b	Sig. (p)	M B	lodel 5 SE	8 (MC b	DD) Sig. (p )	В	Mo SE	del 59 <i>b</i>	Sig. ( <i>p</i> )	В	Ma SE	odel 60 <i>b</i>	) Sig. (p)
Variable Constant	B 4.18	Mo SE 0.74	odel 57 b	Sig. (p)	M B 3.68	lodel 5 <i>SE</i> 0.84	8 (MC b	DD) Sig. (p) 0	B 3.07	Mo <i>SE</i> 1.38	del 59 b	Sig. (p) 0.027	В 3.99	Mo SE 0.1	odel 60 <i>b</i>	) Sig. (p) 0
Variable Constant Gender	B 4.18 -0.34	Mo SE 0.74 0.16	odel 57 b -0.2	Sig. (p) 0 .035*	M B 3.68 -0.33	lodel 5 <i>SE</i> 0.84 0.16	8 (MC b -0.1	DD) Sig. (p) 0 .046*	B 3.07 -0.33	Mo SE 1.38 0.16	del 59 b -0.14	Sig. (p) 0.027 .047*	B 3.99 -0.34	Mo SE 0.1 0.2	-0.2	Sig. (p) 0 .027*
Variable Constant Gender Education	B 4.18 -0.34 -0.19	Mo SE 0.74 0.16 0.74	-0.2 -0	Sig. (p) 0 .035* 0.802	M B 3.68 -0.33 -0.17	SE           0.84           0.16           0.74	8 (MC b -0.1 -0	DD) Sig. (p) 0 .046* 0.818	B 3.07 -0.33 -0.14	Mo SE 1.38 0.16 0.75	del 59 b -0.14 -0.01	Sig. (p) 0.027 .047* 0.852	B 3.99 -0.34	Mo SE 0.1 0.2	-0.2	Sig. (p) 0 .027*
Variable Constant Gender Education Status	B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17	-0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01	SE           0.84           0.16           0.74           0.17	8 (MC b -0.1 -0 0	D) Sig. (p) 0 .046* 0.818 0.958	B 3.07 -0.33 -0.14 -0.01	Mo SE 1.38 0.16 0.75 0.17	del 59 b -0.14 -0.01 0	Sig. (p) 0.027 .047* 0.852 0.971	B 3.99 -0.34	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
Variable Constant Gender Education Status Intellectual	B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17	-0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01	Iodel 5           SE           0.84           0.16           0.74           0.17           0.09	8 (MC b -0.1 -0 0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891	B 3.07 -0.33 -0.14 -0.01 0.2	Mo SE 1.38 0.16 0.75 0.17 0.39	del 59 b -0.14 -0.01 0 0 15	Sig. (p) 0.027 .047* 0.852 0.971 0.608	B 3.99 -0.34	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
Variable Constant Gender Education Status Intellectual Stim	B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17	-0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M 3.68 -0.33 -0.17 -0.01 -0.01	SE           0.84           0.16           0.74           0.17           0.09	8 (MC b -0.1 -0 0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891	B 3.07 -0.33 -0.14 -0.01 0.2	Mo SE 1.38 0.16 0.75 0.17 0.39	del 59 b -0.14 -0.01 0 0.15	Sig. (p) 0.027 .047* 0.852 0.971 0.608	B 3.99 -0.34	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
Variable Constant Gender Education Status Intellectual Stim ContinuCo	B 4.18 -0.34 -0.19 -0.02	Mo <u>SE</u> 0.74 0.16 0.74 0.17	-0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M 3.68 -0.33 -0.17 -0.01 -0.01 -0.16	SE           0.84           0.16           0.74           0.17           0.09           0.11	8 (MC b -0.1 -0 0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35	Mo <i>SE</i> 1.38 0.16 0.75 0.17 0.39 0.36	del 59 b -0.14 -0.01 0 0.15 0.22	Sig. (p)           0.027           .047*           0.852           0.971           0.608           0.329	B 3.99 -0.34	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
Variable Constant Gender Education Status Intellectual Stim ContinuCo mmit ContinuVI	B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17	-0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16	SE           0.84           0.16           0.74           0.17           0.09           0.11	8 (MC b -0.1 -0 0 -0 -0 -0.1	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36	del 59 b -0.14 -0.01 0 0.15 0.22	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329	B 3.99 -0.34	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
Variable Constant Gender Education Status Intellectual Stim ContinuCo mmit ContinuXI ntellect	B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17	-0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16	SE           0.84           0.16           0.74           0.17           0.09           0.11	8 (MC b -0.1 -0 0 -0 -0 -0.1	DD) <u>Sig. (p)</u> 0 .046* 0.818 0.958 0.891 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576	B 3.99 -0.34	Mo <u>SE</u> 0.1 0.2	-0.2	) Sig. (p) 0 .027*
Variable Constant Gender Education Status Intellectual Stim ContinuCo mmit ContinuXI ntellect $\Delta R^2$	B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17	-0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16	SE           0.84           0.16           0.74           0.17           0.09           0.11	8 (MC b -0.1 -0 0 -0 -0 -0.1	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576	B 3.99 -0.34	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
Variable Constant Gender Education Status Intellectual Stim ContinuCo mmit ContinuXI ntellect $\Delta R^2$ F	B 4.18 -0.34 -0.19 -0.02 0.01	Mo SE 0.74 0.16 0.74 0.17	-0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.16 -0.16 0.01 1.46	SE           0.84           0.16           0.74           0.17           0.09           0.11	8 (MC b -0.1 -0 0 -0 -0 -0 -0.1	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13	del 59 -0.14 -0.01 0 0.15 0.22 -0.21	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576	B 3.99 -0.34 0.02 4.97*	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224	Mc SE 0.74 0.16 0.74 0.17	b           -0.2           -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 0.01 1.46 5/222	Instant         Instant <thinstant< th=""> <thinstant< th=""> <thi< td=""><td>8 (MC b -0.1 -0 0 -0 -0 -0.1</td><td>DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133</td><td>B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221</td><td>Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13</td><td>del 59 b -0.14 -0.01 0 0.15 0.22 -0.21</td><td>Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576</td><td>B 3.99 -0.34 0.02 4.97* 1/226</td><td>Mc SE 0.1 0.2</td><td>-0.2</td><td>) Sig. (p) 0 .027*</td></thi<></thinstant<></thinstant<>	8 (MC b -0.1 -0 0 -0 -0 -0.1	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576	B 3.99 -0.34 0.02 4.97* 1/226	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02	Mc SE 0.74 0.16 0.74 0.17	odel 57 b -0.2 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 0.01 1.46 5/222	Instant         Instant <thinstant< th=""> <thinstant< th=""> <thi< td=""><td>8 (MC b -0.1 -0 0 -0 -0.1</td><td>DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133</td><td>B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221</td><td>Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13</td><td>del 59 b -0.14 -0.01 0 0.15 0.22 -0.21</td><td>Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576</td><td>B 3.99 -0.34 -0.34 -0.34 -0.02 4.97* 1/226 -0.01</td><td><u>SE</u> 0.1 0.2</td><td>-0.2</td><td>) Sig. (p) 0 .027*</td></thi<></thinstant<></thinstant<>	8 (MC b -0.1 -0 0 -0 -0.1	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576	B 3.99 -0.34 -0.34 -0.34 -0.02 4.97* 1/226 -0.01	<u>SE</u> 0.1 0.2	-0.2	) Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02	Mo SE 0.74 0.16 0.74 0.17	odel 57 b -0.2 -0 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01	Index         SE           0.84         0.16           0.74         0.17           0.09         0.11	8 (MC b -0.1 -0 0 -0 -0.1 -0.1	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576	B 3.99 -0.34 -0.34 -0.02 4.97* 1/226 -0.01	Mc SE 0.1 0.2	-0.2	) Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02	Mo SE 0.74 0.16 0.74 0.17	odel 57 b -0.2 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 1.46 5/222 0.01	lodel 5 <u>SE</u> 0.84 0.16 0.74 0.17 0.09 0.11 0.11	8 (MC b -0.1 -0 0 -0 -0 -0 -0 -0 2 (MC b	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0.133 0.133	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576	B 3.99 -0.34 -0.34 -0.04 -0.02 4.97* 1/226 -0.01	Mc SE 0.1 0.2	odel 60	Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstant	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B B	Mo SE 0.74 0.16 0.74 0.17	odel 57 b -0.2 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p)	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 1.46 5/222 0.01 M B	Iodel 5           SE           0.84           0.16           0.74           0.17           0.09           0.11           0.04           0.11           0.04           0.11           0.04           0.11	8 (MC b -0.1 -0 0 -0 -0 -0 -0 2 (MC b	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0.133 Sig. (p) 0 0 0 0 0 0 0 0 0 0 0 0 0	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 B B	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 Sig. (p) 0.005	B 3.99 -0.34 -0.34 -0.01 -0.02 4.97* 1/226 -0.01 B B	<u>Ma</u> <u>SE</u> 0.1 0.2 <u>SE</u> 0.1	odel 60	Sig. (p) 0 .027* Sig. (p)
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantConstant	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B 4.18 0.24	Mo SE 0.74 0.16 0.74 0.17	odel 57 b -0.2 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 025*	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 3.84 0.22	Iodel 5           SE           0.84           0.16           0.74           0.17           0.09           0.11           0.04           0.11           0.04           0.11           0.04           0.11           0.11           0.11           0.11           0.11	8 (MC b -0.1 -0 0 -0 -0 -0 -0 2 (MC b 0 1 0 0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0.133 0.133 Sig. (p) 0 0 052*	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 8 3.26 0 32	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b 0.14	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 Sig. (p) 0.005	B 3.99 -0.34 -0.34 -0.01 -0.02 4.97* 1/226 -0.01 B 3.99 3.99 0.24	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60 -0.2 odel 64 b 0.2	Sig. (p) 0 .027* Sig. (p) 0 027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantGenderEducation	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B 4.18 -0.34 0.12	Mo SE 0.74 0.16 0.74 0.17	odel 57 b -0.2 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035*	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32	Iodel 5           SE           0.84           0.16           0.74           0.17           0.09           0.11           0.09           0.11           0           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.01           0.11	8 (MC b -0.1 -0 0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.134 0.135	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 6/221 0 8 3.26 -0.32 0.15	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b -0.14 0.02	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0576 Sig. (p) 0.005 .050* 0.826	B 3.99 -0.34 -0.34 -0.34 -0.01 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60 -0.2 odel 64 b -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantGenderEducationStatus	B 4.18 -0.34 -0.19 -0.02 -0.02 -0.01 1.67 3/224 0.02 -0.12 -0.14 -0.34 -0.34 -0.34	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.16 0.74	odel 57           b           -0.2           -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.802	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 -0.2	Iodel 5           SE           0.84           0.16           0.74           0.17           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.010           0.82           0.16           0.74           0.17	8 (MC b -0.1 -0 0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0.133 0.133 0.133 0.52* 0.792 0.052* 0.792 0.055	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 B 3.26 -0.32 -0.32 -0.32	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.17	del 59 b -0.14 -0.01 0.15 0.22 -0.21 del 63 b -0.14 -0.14 -0.14	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0.576 Sig. (p) 0.005 .050* 0.826 0.092	B 3.99 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60 -0.2 odel 64 b -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantGenderEducationStatusIndividual	B 4.18 -0.34 -0.19 -0.02 -0.02 -0.01 1.67 3/224 0.02 -0.02 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         b         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0	Iodel 5           SE           0.84           0.16           0.74           0.17           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.16           0.74           0.74           0.17	8 (MC b -0.1 -0 0 -0 -0 -0.1 2 (MC b -0.1 -0 0 0 -0.1 -0 0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0.133 0.133 0.133 0.528 0.792 0.985	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 8 3.26 -0.32 -0.16 0	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17	del 59 b -0.14 -0.01 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0.576 	B 3.99 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60 -0.2 odel 64 b -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantGenderEducationStatusIndividualCons	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         b         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09	Iodel 5           SE           0.84           0.16           0.74           0.17           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.082           0.16           0.74           0.17           0.06	8 (MC b -0.1 -0 0 -0 -0.1 2 (MC b -0.1 -0 0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.134 0.133 0.134 0.133 0.134 0.133 0.134 0.134 0.134 0.134 0.135 0.134 0.135 0.134 0.134 0.134 0.134 0.134 0.135 0.134	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 8 3.26 -0.32 -0.16 0 0	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31	del 59 b -0.14 -0.01 0.15 0.22 -0.21 del 63 b -0.14 -0.14 -0.02 0.16	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0.576 	B 3.99 -0.34 -0.34 -0.01 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60           b           -0.2           odel 64           b           -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantGenderEducationStatusIndividualConsConstant	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09	todel 5 SE 0.84 0.16 0.74 0.17 0.09 0.11 0.11 0.11 0.11 0.82 0.82 0.16 0.74 0.74 0.74 0.74 0.74 0.17 0.09	8 (MC b -0.1 -0 0 -0 -0.1 2 (MC b -0.1 -0 0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.134 0.133 0.134 0.133 0.134 0.133 0.134 0.134 0.134 0.134 0.135 0.134 0.135 0.134	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 8 3.26 -0.32 -0.16 0 0.13	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0 0.16	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 0.576 Sig. (p) 0.005 .050* 0.826 0.983 0.67	B 3.99 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60           b           -0.2           odel 64           b           -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ $F$ $df$ $\Delta R^2$ VariableConstantGenderEducationStatusIndividualConsConstantConsConstantConsConstant	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09 -0.17	Iodel 5           SE           0.84           0.16           0.74           0.17           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.09           0.11           0.02           0.11           0.04           0.11           0.05           0.16           0.74           0.17           0.06           0.11	8 (MC b -0.1 -0 0 -0 -0 -0.1 2 (MC b -0.1 -0 0 -0 -0 0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0 .052* 0.792 0.985 0.124 0.1	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 8 3.26 -0.32 -0.16 0 0.13 0.36	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31 0.28	del 59 b -0.14 -0.01 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0.16 0.23	Sig. (p) 0.027 0.47* 0.852 0.971 0.608 0.329 0.576 0.576 Sig. (p) 0.005 0.50* 0.826 0.983 0.67 0.199	B 3.99 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60       b       -0.2       odel 64       b       -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ $F$ $df$ $\Delta R^2$ VariableConstantGenderEducationStatusIndividualConsContinuCommitContinuCommit	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09 -0.17	todel 5 SE 0.84 0.16 0.74 0.17 0.09 0.11 0.11 0.11 0.82 0.16 0.74 0.16 0.74 0.17 0.06 0.11	8 (MC b -0.1 -0 0 -0 -0 -0.1 2 (MC b -0.1 -0 0 -0 -0 0 -0 -0.1 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0 .052* 0.792 0.985 0.124 0.1	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 8 3.26 -0.32 -0.16 0 0.13 0.36	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31 0.28	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0 0.16 0.23 0.23	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0.576 	B 3.99 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60       b       -0.2       odel 64       b       -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ $F$ $df$ $\Delta R^2$ VariableConstantGenderEducationStatusIndividaContinuCommitContinuCommitContinuXIndivid	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B 4.18 -0.34 -0.19 -0.02	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09 -0.17	todel 5 SE 0.84 0.16 0.74 0.17 0.09 0.11 0.11 0.82 0.82 0.16 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.17 0.09	8 (MC b -0.1 -0 0 -0 -0 -0.1 2 (MC b -0.1 -0 0 -0 0 -0 -0 -0.1 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0 .052* 0.792 0.985 0.124 0.124	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 8 3.26 -0.32 -0.16 0 0.13 0.36 -0.36	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31 0.28 0.1	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0 0.16 0.23 -0.3	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0.576 	B 3.99 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60       b       -0.2       odel 64       b       -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ $F$ $df$ $\Delta R^2$ VariableConstantGenderEducationStatusIndividualConsContinuCommitContinuXIndividualContinuXIndivid $\Delta R^2$	B 4.18 -0.34 -0.19 -0.02 -0.02 -0.01 1.67 3/224 0.02 -0.02 -0.02 -0.02 -0.02	Mo SE 0.74 0.16 0.74 0.17 Mo SE 0.74 0.16 0.74 0.16 0.74 0.17	odel 57         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09 -0.17	todel 5 SE 0.84 0.16 0.74 0.17 0.09 0.11 0.11 0.11 0.82 0.16 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.17 0.09	8 (MC b -0.1 -0 0 -0 -0 -0.1 2 (MC b -0.1 -0 0 -0 0 -0 -0.1 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0 0 0 0 0 0 0 0 0 0 0 0 0	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 8 3.26 -0.32 -0.16 0 0.13 0.36 -0.36 -0.07	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31 0.28 0.1	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0 0.16 0.23 -0.3	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 0.576 	B 3.99 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60       b       -0.2       odel 64       b       -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantGenderEducationStatusIndividualConsContinuCommitContinuCommitContinuXIndivid $\Delta R^2$ F	B 4.18 -0.34 -0.19 -0.02 -0.02 -0.01 1.67 3/224 0.02 -0.02 -0.02 -0.02 -0.01 1.67	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09 -0.17 -0.17 -0.17	todel 5 SE 0.84 0.16 0.74 0.17 0.09 0.11 0.11 0.82 0.16 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.17 0.09	8 (MC b -0.1 -0 0 -0 -0.1 2 (MC b -0.1 -0 0 -0 0 -0.1 -0 0 -0 -0.1 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0 .052* 0.792 0.985 0.124 0.124 0.1	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 3.26 -0.32 -0.16 0 0.13 0.36 -0.32 -0.13 0.36 -0.07	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31 0.28 0.1	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0 0.16 0.23 -0.3	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0.576 	B 3.99 -0.34 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 B 3.99 -0.34 -0.34 -0.34 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60       b       -0.2       odel 64       b       -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantGenderEducationStatusIndividualConsContinuCommitContinuCommitContinuXIndivid $\Delta R^2$ Fdf	B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224 0.02 B 4.18 -0.34 -0.19 -0.02 0.01 1.67 3/224	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09 -0.09 -0.17 -0.17 0.02 1.95 5/222	todel 5 SE 0.84 0.16 0.74 0.17 0.09 0.11 0.11 0.11 0.82 0.16 0.74 0.16 0.74 0.17 0.06 0.11	8 (MC b -0.1 -0 0 -0 -0 -0.1 2 (MC b -0.1 -0 0 -0 0 -0 -0 -0.1 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0 0 0 0 0 0 0 0 0 0 0 0 0	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 3.26 -0.32 -0.16 0 0.13 0.36 -0.32 -0.16 0 0.13 0.36 -0.07	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31 0.28 0.1	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0 0.16 0.23 -0.3	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0.576 	B 3.99 -0.34 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 -0.34	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60       b       -0.2       odel 64       b       -0.2	Sig. (p) 0 .027* Sig. (p) 0 .027*
VariableConstantGenderEducationStatusIntellectualStimContinuCommitContinuXIntellect $\Delta R^2$ Fdf $\Delta R^2$ VariableConstantGenderEducationStatusIndividualConsContinuCommitContinuXIndividualConsContinuXIndivid $\Delta R^2$ Fdf $\Delta R^2$	B 4.18 -0.34 -0.19 -0.02 -0.02 -0.01 1.67 3/224 -0.19 -0.02 -0.02 -0.01 1.67 3/224 -0.01	Mo SE 0.74 0.16 0.74 0.17 SE 0.74 0.16 0.74 0.17	odel 57         -0.2         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0         -0.2         -0         -0         -0         -0         -0         -0	Sig. (p) 0 .035* 0.802 0.913 Sig. (p) 0 .035* 0.802 0.913	M B 3.68 -0.33 -0.17 -0.01 -0.01 -0.16 5/222 0.01 M B 3.84 -0.32 -0.2 0 0 -0.09 -0.09 -0.17 -0.17 0.02 1.95 5/222 0.02	todel 5 SE 0.84 0.16 0.74 0.17 0.09 0.11 0.11 0.82 0.16 0.74 0.16 0.74 0.17 0.06 0.11	8 (MC b -0.1 -0 0 -0 -0.1 2 (MC b -0.1 -0 0 -0 0 -0.1 -0 0 -0 -0.1	DD) Sig. (p) 0 .046* 0.818 0.958 0.891 0.133 0.133 0 0 0 0 0 0 0 0 0 0 0 0 0	B 3.07 -0.33 -0.14 -0.01 0.2 0.35 -0.07 0.01 1.26 6/221 0 0 3.26 -0.32 -0.16 0 0.13 0.36 -0.32 -0.16 0 0.13 0.36 -0.07 0.02 1.7 6/221 0.02	Mo SE 1.38 0.16 0.75 0.17 0.39 0.36 0.13 0.13 Mo SE 1.14 0.16 0.74 0.17 0.31 0.28 0.1	del 59 b -0.14 -0.01 0 0.15 0.22 -0.21 del 63 b -0.14 -0.02 0 0.16 0.23 -0.3	Sig. (p) 0.027 .047* 0.852 0.971 0.608 0.329 0.576 .0576 .0576 0.005 .050* 0.826 0.983 0.67 0.983 0.67 0.199 0.474	B 3.99 -0.34 -0.34 -0.34 -0.02 4.97* 1/226 -0.01 -0.02 4.97* 1/226 0.02	Mc <u>SE</u> 0.1 0.2 <u>Mc</u> <u>SE</u> 0.1 0.2	odel 60         b         -0.2         odel 64         b         -0.2	) Sig. (p) 0 .027* Sig. (p) 0 .027*

# **Theoretical Implications of Findings**

Three scholarly leadership articles have provided evidences to support these arguments in a variety of cultures and contexts. Khasawneh, Omari, and Abu-Tineh (2012) provided evidence that suggests that transformational leadership is positively related to dimensions of organizational commitment in a variety of organizational settings and cultures. Using Chinese and Indian respondents, Walumbwa, Wang, Lawler, and Shi (2004) determined that transformational leadership is positively related to organizational commitment, while Swanepoel, Erasmus, Van Wyk, and Scheck (2000) emphasized that organizational commitment was a function of leadership styles, which is necessary for organizations to effectively deliver on business strategies and achieve organizational goals. However, House et al. (2004) cautioned that due to its relatively high-power distance orientation, leadership in the sub-Saharan Africa cultural cluster may face a completely different set of challenges in motivating employees and gaining their trust, admiration, loyalty, and respect than would otherwise be the case in relatively low power distance societies such as those found in the Anglo and Germanic cultural clusters.

No study was found that considers the possibility of organizational commitment dimensions moderating the strength or direction of relationships between transactional and transformational leadership styles and leadership effectiveness among Sub-Saharan African employees. This study explored the moderation effect of dimensions of organizational commitment on leadership styles and leadership effectiveness among sub-Saharan African employees. Secondly, gender was the only demographic variable that had a significant effect between this study's predictor and criterion variables. The significance of the gender demographic as identified in this study further corroborates the findings of the GLOBE study of which Nigeria was one of the five sub-Saharan Africa societies sampled. Referring to findings of the GLOBE study, Wanasika, Howell, Littrell, and Dorfman (2011) explained that one of the main themes that characterizes organizations and leadership in the sub-Saharan region is that it is "heavily patriarchal and patrimonial with little role for women in tribal governance. Leadership positions were based on ascribed status and respect was given to individuals who were male and/or advanced in age" (p. 239). This implies that in sub-Saharan Africa, leadership may be attained by being the only male child or the oldest male child.

# **Study Limitations**

Using common method to collect responses was limiting as the same respondents provided data that were used for the independent, dependent, moderating, and control variables. However, the limitation was restricted, as use of an anonymous survey platform meant respondent did not have to provide socially desirable responses. This was also a cross-sectional study as data were collected from a subset of the population at one specific point in time.

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# About the Author.

**Samuel Fadare** is currently the Vice President of Compliance and Operational Risk Management at a Sovereign Wealth Fund. He has had a variety of experiences in global organizations which cut across Compliance, Risk Management, Internal Audit, Consulting, and Academia in Europe, the United States of America, and Africa. Fadare was formerly the Head of Business and Operational Risk at First City Monument Bank plc with primary responsibility for coordinating and implementing the bank's Enterprise Risk Management project. He has worked as an Audit Senior and Audit Manager with international financial services institutions including Barclays Bank plc, Royal Bank of Scotland plc, EFG Private Bank (UK) Limited and Morgan Stanley & Co. International plc. He also had a stint as Consultant/Senior Manager with the Business Risk Services practice of Grant Thornton (UK) LLP providing advisory services to Grant Thornton (UK) LLP's clients.

He attained an MSc in Finance & Investment from the University of Edinburgh, an MBA in Finance from the University of Manchester, and a PhD in Organizational Leadership from Regent University, Virginia (US).

Dr. Fadare can be reached at <u>samufad@mail.regent.edu</u>.