

Gender and Family Structure on Career Progression in Public Audit Firms in Nigeria

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Abstract: Gender and family structure are important variables in the growth and promotion of auditors in public audit firms to be partners and managing partners. Therefore, this study examines the effect of gender and family structure on the career progression of individuals in public audit firms in Nigeria. To achieve this objective, relevant primary and secondary data were used. The primary data was collected from a well structured questionnaire administered to one hundred and twenty three respondents with an average reliability of 0.83 and the secondary data from published scholarly articles. The data collected from the questionnaires were analyzed using regression, t-test, granger causality test and diagnostic test. The statistical analysis reveals the linkage between gender and technical competence of auditors in public audit firms; family structure and productivity of auditors in public audit firms; family structure and dedication to duty of auditors in public audit firms and the difference between male and female on the career progression in public audit practice. On the basis of the empirical result, the study concludes that gender of an individual does not affect the technical competence of auditors, but rather what is important is the level of education and experience of the auditor; family structure affects the productivity of auditors. This is particularly in respect to women that are married; family structure affects the dedication of auditors in public audit firms and there are differences between the growth and promotion of male or female in public audit firms. On the basis of the conclusion, useful recommendations were presented to improve the role of gender and family structure on career progression in public audit firms.

Keywords: Auditors, career progression, competence, family structure, gender, Nigeria

INTRODUCTION

Women constitute nearly half of the world's population. They also comprise half of the workforce. Their contribution is important for the development of society. However, they work just to supplement their family's income. This is because their major role is to look after their families (Azmi *et al.*, 2011). Ukuta (2011) also stated that the potentials of women derive several factors including the fact that women constitute about equal percentage of world population as men do. The leading role of women of developed countries in creating awareness among women about their contribution to the socio-economic development of their countries like their male counterparts cannot be overemphasized. Therefore, women in Nigeria are found all over the world in different professions and at different levels competing with their male counterparts. This view is supported by Whiting (2004) when she argues that there has been substantial increase in the participation of women in the paid workforce throughout the world. Jensen and Matznevski (2011) stressed that women held 49% of the jobs in the US and

50% of all managerial positions. They stated that a report from the US Department of labor in 2006 noted that women outnumber men in such occupations as financial managers; human resource managers; accountants and auditors; budget analysts; educational administrators; medical and health services managers.

According to Whiting and Wright (2001), women constitute over a third of professional accountants in New Zealand. The once-dominated accounting profession has, in the past required adherence to a linear male career model to ensure career progression (Limehan and Waish, 2001). Long working hours, client's availability and unqualified support from a spouse at home have been conditions for top level career progression (Smithson *et al.*, 2004). Whiting (2004) stated that this still remains, but is now being achieved by not only men, but a number of women. Wooten (2001) stated that majority of audit firms of all sizes have been motivated by internal and external factors to make the retention of women a priority and adopt a variety of women initiatives. One of the most common of these initiatives is to allow more flexible schedules. Research has shown that flexible work

schedules result in lower burnout and intended turnover (Almer and Kaplan, 2002), yet at least in the short run, this appears to result in negative perceptions of peers and superiors related to career progression (Almer *et al.*, 2004). Studies have shown that attitudes of superiors are fundamental in the willingness of women to adopt flexible schedule (Almer *et al.*, 2003). The marginalization of women has evolved over time, moving from a horizontal segregation to a vertical segregation: access to certain tasks has now been opened up to women, but activities associated with progression remained the privileged domain of men (Jensen and Matznevski, 2011).

A number of studies in the developed economies have shown that gender and family structure on career progression on audit firms. In Great Britain, in the age range of 36, 14% of men and only 7% of women are partners. In the age range under 36 to 45, 34% of men are partners compared to 25% of women. Laigneau and Vandermeirssche (2006) in France stated that women are equally less represented at the highest positions of audit firms' hierarchies. They represent 50% of junior assistants but only between 7 and 20% of partners, depending on the firm. Windsor and Auyeung (2006) reported that gender and dependent children interact to affect the advancement of professional women accountants' to partner level. Whiting (2004) has studied the impact of childbearing responsibilities on the career success of female chartered accountants in New Zealand. Haynes (2004) explored the association between the experience of the accounting profession and the identity of motherhood in United Kingdom. Llewellyn and Walker (2000) and Walker (2003) stated that women that wish to become mothers have no place in the accounting profession. Society expects them to be "household accountants" and/or the attentive and understanding spouse of the professional accountant (Bravo *et al.*, 2005).

However, there are no published empirical studies on gender and family structure on career progression on audit firms' in Nigeria. This study attempts to fill this gap. Therefore, the objective of this empirical study is to examine the impact of gender and family structure on career progression in professional accounting firms in Nigeria. To achieve this objective, the study was divided into six interconnected sections. The next section examines theoretical framework and prior empirical studies of gender and family structure on audit firms'. The third section presents the materials and methods adopted in the study. The fourth section presents the results and discussions and the fifth section examines the conclusion, recommendations and suggestion for further research.

THEORETICAL AND EMPIRICAL LITERATURE

Theoretical background on gender: Gender, as a social rather than biological construction, is widely seen to affect home, work spheres, despite being culturally and historically variable (Whiting, 2004). It therefore follows that differences of men and women do not stem from sexual differences, the causes of such differences are explained by three basic theories of psychoanalytic, cultural transmission and cognitive development (Anderson-Gough *et al.*, 2005). Psychoanalytic theory states that individuals pass through different stages of growth with different experiences which determine their attitude to life and future. Cultural transmission theory states that every society passes to its people a social environment which constantly and stereotypes such as gender identities since children at birth possess clean mental state and the cognitive development theory examines the growth demonstrated by human beings as they progress from a state of not knowing to knowing. It refers to the mental process by which knowledge is acquired and utilized (Oladele, 2005; Chatterjee, 2010).

Blair-Loy (2003) argues that there are two deeply embedded cultural models, the schema of family devotion and work devotion. The family devotion takes children as fragile and vulnerable and motherhood as a primary vocation and men as unable to provide the selflessness and patience that constant care of children requires. On the other hand, work devotion requires a single-minded allegiance to the firm through long hours and availability to clients. In the traditional family structure women follow the family devotion and men pursue the work devotion schema.

Theoretical background on audit: Awe (2008) defines auditing as an independent examination of the books and accounts of an organization by a duly appointed person to enable that person give an opinion as to whether the accounts give a true and fair view and comply with relevant statutory guidelines. Audits are typically classified into three types: audits of financial statements, operational audits and compliance audits. Audits of financial statements examines financial statements to determine if they give a true and fair view or fairly present the financial statements in conformity with specified criteria (Adeniyi, 2004; Okezie, 2008; Appah, 2010). Operational audit is a study of a specific unit of an organization for the purpose of measuring its performance. According to Hayes *et al.* (1999), operational audits review all or part of the organization's operating procedures to evaluate effectiveness and efficiency of the operation.

Effectiveness is a measure of the extent to which an organization achieves its goals and objectives. Efficiency shows how well an organization uses its resources (Oshisami, 2004). Compliance audit is review of an organization's procedures to determine whether the organization is following specific procedures, rules or regulations set out by some higher authority. According to Oshisami (2004), compliance audit provides examination of financial statements, accounts and reports and their compliance with applicable regulations to certify that: there are effective controls over revenue, expenditure, assets and liabilities; there are proper accounting records of the resources, operations and encumbrances; the accounting and financial reports are sufficiently accurate, reliable, timely and useful and fairly represents the transactions, events and conditions reported upon and applicable laws and regulations have been complied with.

Akinbuli (2010) and Hayes *et al.* (1999) reported that several theories of auditing were made to specify and determine the audit functions. Some of these theories include:

The policeman theory: This theory of auditing was purely on the arithmetical accuracy and on the prevention and detection of fraud. This theory makes the auditor to detect and prevent errors and fraud in organizations.

The lending credibility theory: This theory of auditing regards the primary function of auditing to be the addition of credibility to the financial statements. Akinbuli (2010) states that audited financial statements can enhance stakeholders' faith in management's stewardship.

Theory of inspired confidence: This theory states that stakeholders demand accountability from the management in return for their contribution to the organization.

The moderator of claimant's theory: This theory states that it is important that all vital participants in an organization continue to contribute. In order to continue these contributions, it is important that each group believes it receives a fair share of the organizations income.

Agency theory: This theory is associated with conflicting interests of shareholders and management of organizations, suggesting that the less informed party will have to demand for information that monitors the

behavior of better informed manager (Akinbuli, 2010). According to Hayes *et al.* (1999), agency theory can be used to explain the supply side of the audit market. The contribution of an audit to third parties is basically determined by the probability that the auditor will detect errors in the financial statements and the auditor's willingness to report these errors.

Effect of gender on career progression in audit firms: According to Ukuta (2011), female professional accountants are predominantly represented at higher position of management in audit practice despite the fact that it is open to both male and female. Therefore, gender roles are changeable while sex differences and roles are fixed and cannot be changed. Whiting and Wright (2001) argues that gender disparities in seniority level and salary are found in accounting profession in the New Zealand. This research revealed that female professional accountants have lower job status and receive less remuneration than their male colleagues. Macfie (2002) stated that females are poorly represented in the top categories of the accounting profession. The effect of gender on job status and remuneration of professional accountants can be subdivided into three categories of attributes, structure and attitudes (Whiting and Wright, 2001). On the issue of attributes, it is argued that there are differences in the personal attributes and behavioral features of male and females. These attributes of women lack of self-confidence, decisiveness, self promotion, childbearing capacity, lower career aspirations (Anderson-Gough *et al.*, 2005). Whiting and Wright (2001) study in New Zealand indicated that lower career aspirations, less work experience, fewer working hours, more time-out and greater family responsibilities have negative impact on the careers of women accountants'. The structure-centred theory argues that women are significantly disadvantaged as a result of the traditional patriarchal structure such as long working hours, client availability, informal male and old boys' networking (Limehan and Waish, 2001; Smith, 2004; Anderson-Gough *et al.*, 2005; Oakley, 2000). The attitudes of prejudice or statistical discrimination may be practiced, so that individual females may be discriminated against inadvertently (Chung, 2001). Klein (2003) stated that gender bias is still one of the greatest issue women encounters in the workplace.

Effect of family structure on career progression in audit firms': Ukuta (2011) stated that the family is the basic unit of any society and it is formed by the association of male and female through the institution

Table 1: Summary of empirical studies

Author	Country	Period	Methods	Major findings
Whiting and Vugt (2006)	New Zealand	2005	Non-parametric statistical technique	The results found no effect of gender alone, but there were some differential effects on the likelihood of career promotion with parental and family structure.
Carrera <i>et al.</i> (2001)	Spain	1942-1988	Descriptive statistics	Their findings reveal that the audit profession did not have an independent strategy about the role of women at work, but mimicked the attitudes deployed by the state during their observation period.
Abidin <i>et al.</i> (2008)	Malaysia	2005	Questionnaire and multiple regression	The study revealed that family and gender impediments affect women accountants' progression in Malaysia
Jaffer <i>et al.</i> (2010)	Malaysia	2009	Questionnaire and parametric and non-parametric statistical tools	The study found that there is a significant relationship between problems experienced by women internal auditors and their current position in the profession.
Cohen and Single (2001)	New Zealand	1999	Questionnaire, descriptive statistics, ANOVA, MANCOVA	The result indicates gender and family structure are related to career promotion in accounting firms.
Stedham <i>et al.</i> (2003)	Japan	2002	Questionnaire, descriptive statistics, t-test, regression and Pearson correlations	The result reveals a gap in salary between male and female accountants.

Adopted from several authors

of marriage. The Nigerian family structure is made up of consanguine units. On the consanguine basis, the family consists of several generations of blood relatives. The conjugal unit of nuclear family consists of husband, wife and their children. It can also be part of the extended family, which consists of all the people defined as kin. Matrilineal extended family is also common in Nigeria. Li and Wearing (2001), reported that many studies have stated work-family conflicts as an obstacle which hinders employment and career progression opportunities. They argued that the existence of a family can lead to work interruptions, increased household responsibilities, the need to attend to child-care and take maternity leave. Vinnicombe and Singh (2003) stated that both male and females believed that family determinants had a restrictive effect on career progression.

Effect of family structure on career progression of females and males: Limehan and Waish (2001) reported that career success was still founded upon male career model that largely ignores the impact of marriage, household duties and pregnancy and children. When individuals take time out of their career for family reasons, they perceived as lacking the necessary commitment needed to advance. Whiting (2004) observed that marriage and children improved the career status of men, but had an adverse effect on that of women's.

Windsor and Auyeung (2006) stated that motherhood is synonymous with a slowing, even halting, of career progression in audit firms, specifically at partner level. This may be associated with the difficulty of managing the conflicting roles of breadwinner and homemaker. The woman-mother has no place in the accounting profession. In contrast, society expects her to be the household accountant

and/or attentive and understanding spouse of the chartered accountant (Komori and Humphrey, 2000; Walker, 2003; Carnegie and Walker, 2007). Komori (2008) study of Japanese profession reveals that if Japanese social values and stereotypes differ from Anglo-Saxon's local gender norms highly influence women accountants' experience at work.

Prior empirical studies: Many authors have carried out empirical studies to address some or related issues of gender and family structure on career progression in public audit firms. Some of these authors include Wirth (2001) stated that the reality of women in position of responsibility is undesirable. Several studies account for this as a slow, progressive disappearance of women from the organization rather than a sudden halt to their ordinary career progression. Schroeder (2000) reported that African-American/Hispanics/Women are failing to progress in the accounting profession because they possess different personality types and attitudes that are incongruent with traits necessary for success. Laigneau and Vandermeirssche (2006) stated that women remain under-represented in the highest echelons of the accounting firms. They still account for 50% of junior assistants, but only represent between 7 and 20% of partners on the firm. Table 1 presents author, country, period, method and findings of empirical studies.

On the basis of the literature reviewed, the authors hypothesize the following:

Ho1: There is no significant relationship between gender and technical competence in public audit firms.

Ho2: There is no significant relationship between family structure and productivity in public audit firms.

Ho3: There is no significant relationship between Family structure and dedication in public audit firms.

Ho4: There is no significant difference between male and female in career progression in public audit firms.

MATERIALS AND METHODS

Research design: This research applied the quasi-experimental research design. Therefore, the quasi-experimental research design is chosen and applied because of the fact that the various elements of the design are not under the control of the researcher. The survey research design is thus applied because it relies on sample elements from the population of interest (Baridam, 2008; Osuala, 2005).

Instrument, sample and response: A set of questionnaires were developed which contained three sections (namely A, B & C). Some of the questions and attributes discussed by Whiting and Wright (2001), Whiting (2004), Whiting and Vugt (2006), Windsor and Auyeung (2006), Jaffer *et al.* (2010) and Ukuta (2011) were used and modified to meet the purpose of the study. Exception of section A, the other sections requested the respondents to indicate their opinion based on 5 point scale of Strongly Agree (SA-5), Agree (A-4), Indifference (I-3), Disagree (DA-2) and Strongly Disagree (SD-1). Sample of the study public audit firms listed in the membership year book 2007 of the Institute of Chartered Accountants of Nigeria (ICAN). The questionnaires were distributed to sixty (60) accounting firms with an average of 6 employees totaling three hundred and sixty (360) in the following cities Port Harcourt, Warri, Yenagoa, Calabar, Uyo, Owerri, Enugu and Benin with the assistance of ten research assistants. The respondents were selected randomly from the ICAN membership database. Out of the 360 questionnaires mailed, 123 were useable which represents 34% of the total mailed questionnaire to meet the assessable response rate of 30% (Sekaran, 2000; Osuala, 2005; Ndiyo, 2005; Baridam, 2008).

Reliability test: Reliability test were conducted on section B and C. The test-retest reliability was used to ascertain the reliability of the instrument. This was done by administering the instrument to 30 respondents and after a period of 2 weeks, the same respondents were also given the same instrument to ascertain the internal consistency of the questionnaire. Section B the Cronbach's alpha value was 0.8324 while for section C the value was 0.87023. Sekaran (2000) and Osuala (2005) stated that the closer the Cronbach's alpha to 1, the higher is the internal consistency of the instrument.

Ndiyo (2005) noted that reliability is usually determined when the object, observation or measurement is performing consistently and also when such performance is predictable.

Data analysis technique: The primary data collected from the administered questionnaire were analyzed using descriptive statistics, regression and t-test. Excel software helped us to transform the variables into format suitable for analysis, after which the Econometric view (E-view) and Statistical Package for Social Sciences (SPSS) was used for data analysis. However, the regression model was tested using the diagnostic tests of heteroskedasitcity, serial correlation, normality and misspecification (Gujarati and Porter, 2009; Asterious and Hall, 2007; Greene, 2002; Brooks, 2008; Rawlings *et al.*, 1998; Wooldridge, 2006; Kozhan, 2010).

RESULTS AND DISCUSSION

This section of the study presents the results and discussion from the empirical analysis using the relevant software.

The Table 2 shows the demographic analysis of respondents. The table shows that 94 respondents male representing 76% and 29 female representing 24%. The age analysis shows that age 20-30 representing 21%, ages 30-40 representing 30%, ages 40-50 representing 35% and ages above 50 representing 14% of the respondents. The marital status shows that 62% are single and 38% married. The educational status shows 11% for secondary education, 62% higher education and 27% were professionals. The one hundred and twenty three respondents were all auditors in accounting firms.

Table 2: Demographic analysis of respondents

Category	Frequency	(%)
	N = 123	Total = 100%
Gender:		
Male	94	76
Female	29	24
Age groups:		
25-30	26	21
30-40	37	30
40-50	43	35
50 above	17	14
Status:		
Single	76	62
Married	47	38
Education:		
Secondary	13	11
Higher education	76	62
Professional	34	27
Occupation:		
Auditors	123	100

Field survey (2012)

Table 3: Gender and technical competence

Variable	Coefficient	S.E.	t-statistic	Prob.
C	833969.5	751709.4	1.109431	0.299500
GEN	0.186113	0.047752	3.897492	0.003500
R-squared	0.241030	Mean dependent var.		3419466
Adjusted R-squared	0.312142	S.D. dependent var.		1794696
S.E. of regression	1118041	Akaike info criterion		30.868910
Sum squared residual	1.00E+13	Schwarz criterion		30.929430
Log likelihood	-152.3446	F-statistic		15.190440
Durbin-Watson stat	2.153201	Prob. (F-statistic)		0.004561

Dependent variable: TECOM; Method: Least squares; Date: 06/2/12; Time: 10:23; Included observations: 123; E-view output

Table 4: Breusch-Godfrey serial correlation LM test

F-statistic	0.333644	Probability	0.528796
Obs*R-squared	1.000838	Probability	0.406277
E-view output			

Table 5: White heteroskedasticity test

F-statistic	3.420083	Probability	0.123013
Obs*R-squared	4.942257	Probability	0.134489
E-view output			

Table 6: Ramsey RESET test

F-statistic	1.471444	Probability	0.230214
Log likelihood ratio	3.990991	Probability	0.113846
E-view output			

Table 7: Pair wise granger causality tests

Null hypothesis	Obs	F-statistic	Probability
GEN does not granger cause TECOM	123	0.08183	0.12361
TECOM does not granger cause GEN		3.20302	0.03452

Date: 06/2/12; Time: 10:32; Sample: 123; Lags: 0; E-view output

Ho1: There is no significant relationship between gender and technical competence in public audit firms: Table 3 above shows the regression result for Gender (GEN) and Technical Competence (TECOM). The table reveals that the p-value of 0.0035 (0.35%) is less than the critical value of 0.05 (5%). This implies that we fail to accept the null Hypothesis (HO), hence we accept the Alternative Hypothesis (HA) that there is a significant relationship between gender and technical competence of auditors. The R^2 (coefficient of determination) of 0.241030 shows that the variables combined determines about 24% of the technical competence of auditors. The F statistics and its probability shows that the regression equation is properly formulated telling us that the relationship between the variables combined are statistically significant (F-Statistics = 15.19044; F-statistics Prob. = 0.004561). Using the coefficients as elasticity, the variable is positively signed meaning that there is a positive relationship between gender and technical competence of auditors. This result is consistent with the findings of Cohen and Single (2001) that gender and family structure are related to career promotion in accounting firm.

The Table 4 shows the Breusch-Godfrey Serial Correlation LM test. The result of the test reveals that the probability values of 0.528796 and 0.406277 is greater than the critical value of 0.05; this implies that the null hypothesis of no autocorrelation will be accepted because the p-value of about 73% is greater than the c-value of 5%,.

The Table 5 shows the White Heteroskedasticity test. The result reveals that the p-values of 0.123013 and 0.134489 are greater than the c-value of 0.05; this implies that we accept the null hypothesis of no evidence of heteroskedasticity, since the p-values are considerably in excess of the 0.05.

The Table 6 shows the Ramsey RESET test. The result reveals that the p-values of 0.230214 and 0.113846 are greater than the critical value of 0.05; this implies that there is apparent linearity in the regression equation and so it will be concluded that the model is appropriate.

The Table 7 shows the Pair wise Granger Causality tests for cause and effect relationship. The result reveals that the probability value of 0.12361 (12%) is greater than the critical value of 0.05 (5%), this implies that we reject the null hypothesis of gender does not granger cause technical competence and accept the alternative hypothesis that gender does granger cause technical competence. Also that technical competence of 0.03452 (3%) is less than 0.05 (5%), which implies that we accept the null hypothesis that technical competence does not granger cause gender.

Ho2: There is no significant relationship between family structure and productivity in public audit firms: The Table 8 shows the regression result for productivity and family structure. The table reveals that the p-value of 0.0260 (2.6%) is less than the critical value of 0.05 (5%). This implies that we fail to accept the null Hypothesis (HO); hence we accept the Alternative Hypothesis (HA) that there is a significant relationship between family structure and productivity of auditors in accounting firms. The R^2 (coefficient of determination) of 0.236278 shows that the variables

Table 8: Regression result for productivity and family structure

Variable	Coefficient	S.E.	t-statistic	Prob.
C	1936879	1808072	1.071240	0.315300
FAMS	0.359935	0.112858	2.147274	0.026000
R-squared	0.236278	Mean dependent var.		3419466
Adjusted R-squared	0.178313	S.D. dependent var.		1794696
S.E. of regression	1296272	Akaike info criterion		31.164740
Sum squared residual	1.34E+13	Schwarz criterion		31.225260
Log likelihood	-153.8237	F-statistic		21.517170
Durbin-Watson stat	2.012530	Prob. (F-statistic)		0.002023

Dependent variable: PRO; Method: Least squares; Date: 06/2/12; Time: 10:46; Included observations: 123; E-view output

Table 9: Breusch-Godfrey serial correlation LM test

F-statistic	0.368060	Probability	0.403822
Obs*R-squared	1.092796	Probability	0.349032

E-view output

Table 10: Ramsey RESET tests

F-statistic	2.65262	Probability	0.124583
Log likelihood ratio	5.86007	Probability	0.100360

E-view

Table 11: White heteroskedasticity test

F-statistic	5.918020	Probability	0.132448
Obs*R-squared	4.572483	Probability	0.102681

E-view

Table 12: Pair wise granger causality tests

Null hypothesis	Obs	F-statistic	Probability
PRO does not granger cause FAMS	123	4.32457	0.01942
FAMS does not granger cause PRO		2.34289	0.31212

Date: 06/2/12; Time: 10:57; Lags: 0; E-view output

combined determines about 24% of the productivity of auditors in Nigeria. The F statistics and its probability shows that the regression equation is properly formulated telling us that the relationship between the variables combined are statistically significant (F-Statistics = 21.51717; F-statistics Prob. = 0.002023). Using the coefficients as elasticity, the variable is positively signed meaning that there is a positive relationship between productivity and family structure of auditors in accounting firms.

The Table 9 shows the Breusch-Godfrey Serial Correlation LM test. The result of the test reveals that the probability values of 0.528796 and 0.406277 is greater than the critical value of 0.05; this implies that the null hypothesis of no autocorrelation will be accepted because the p-value of about 73% is greater than the c-value of 5%.

The Table 10 shows the Ramsey RESET test. The result reveals that the p-values of 0.124583 and 0.100360 are greater than the critical value of 0.05; this implies that there is apparent linearity in the regression equation and so it will be concluded that the model is appropriate.

The Table 11 shows the White Heteroskedasticity test. The result reveals that the p-values of 0.132448

and 0.102681 are greater than the c-value of 0.05; this implies that we accept the null hypothesis of no evidence of heteroskedasticity, since the p-values are considerably in excess of the 0.05.

The Table 12 shows the Pair wise Granger Causality tests for cause and effect relationship. The result reveals that the probability value of 0.01942 (1.9%) is less than the critical value of 0.05 (5%), this implies that we accept the null hypothesis of productivity does not granger cause family structure. The probability of 0.61432 (61%) is greater than 0.05 (5%), this implies we reject the null hypothesis of family structure does not granger cause productivity and accept the alternative hypothesis that family structure granger cause productivity of audit firms in Nigeria.

Ho3: There is no significant relationship between family structure and dedication in public audit firms:

The Table 13 shows the regression result for dedication and family structure. The table reveals that the p-value of 0.0060 (0.60%) is less than the critical value of 0.05 (5%). This implies that we fail to accept the null Hypothesis (HO); hence we accept the Alternative Hypothesis (HA) that there is a significant relationship between family structure and dedication of auditors in public accounting firms. The R² (coefficient of determination) of 0.684584 shows that the variables combined determines about 68% of the GDP of Nigeria. The F statistics and its probability shows that the regression equation is properly formulated telling us that the relationship between the variables combined are statistically significant (F-Statistics = 18.9271; F-statistics Prob. = 0.00427). Using the coefficients as elasticity, the variable is positively signed meaning that there is a positive relationship between family structure and dedication to duty of auditors in public accounting firms.

The Table 14 shows the Breusch-Godfrey Serial Correlation LM test. The result of the test reveals that the probability values of 0.082758 and 0.065439 is greater than the critical value of 0.05; this implies that

Table 13: Regression result for dedication and family structure

Variable	Coefficient	S.E.	t-statistic	Prob.
C	438898.5	678140.4	0.647209	0.53560
FAMS	0.387358	0.127454	3.039100	0.00600
R-squared	0.684584	Mean dependent var.		1389208
Adjusted R-squared	0.468655	S.D. dependent var.		7804502
S.E. of regression	1027811	Akaike info criterion		30.70062
Sum squared residual	8.45E+12	Schwarz criterion		30.76113
Log likelihood	-151.503100	F-statistic		18.92710
Durbin-Watson stat	2.012531	Prob. (F-statistic)		0.00427

Dependent variable: DED; Method: Least squares; Date: 06/2/12; Time: 13:38; Included observations: 123; E-view

Table 14: Breusch-Godfrey serial correlation LM test

F-statistic	2.290771	Probability	0.082758
Obs*R-squared	1.342963	Probability	0.065439

E-view

Table 15: White heteroskedasticity test

F-statistic	3.508485	Probability	0.088014
Obs*R-squared	5.006053	Probability	0.081837

E-view

Table 16: Ramsey RESET test

F-statistic	1.273489	Probability	0.345952
Log likelihood ratio	3.538183	Probability	0.170488

E-view output

Table 17: Pair wise granger causality tests

Null hypothesis	Obs	F-statistic	Probability
DED does not granger cause FAMS	123	4.82791	0.03261
FAMS does not granger cause DED		0.48252	0.65813

Date: 06/2/12; Time: 13:41; Lags: 0; E-view output

Table 18: Difference between male and female in career progression

Gender	N	X	SD	DF	t-cal	t-table
Male	94	19.64	4.922	38	*2.63	1.96
Female	29	7.51	2.680			

Field survey (2012)

the null hypothesis of no autocorrelation will be accepted because the p-value of about 8% is greater than the c-value of 5%.

The Table 15 shows the White Heteroskedasticity test. The result reveals that the p-values of 0.088014 and 0.081837 are greater than the c-value of 0.05; this implies that we accept the null hypothesis of no evidence of heteroskedasticity, since the p-values are considerably in excess of the 0.05.

The Table 16 shows the Ramsey RESET test. The result reveals that the p-values of 0.345952 and 0.170488 are greater than the critical value of 0.05; this implies that there is apparent linearity in the regression equation and so it will be concluded that the model is appropriate.

The Table 17 shows the Pair wise Granger Causality tests for cause and effect relationship. The result reveals that the probability value of 0.03261 (3.2%) is less than the critical value of 0.05 (5%), this implies that we accept the null hypothesis of dedication

does not granger cause family structure. Also probability of 0.65813 (66%) is greater than the critical value of 0.05 (5%), this implies we accept the alternative hypothesis that family structure granger cause gross dedication.

Ho4: There is no significant difference between male and female in career progression in public audit firms: The Table 18 indicates that there is a significant difference between male and female in the career progression in public audit firms. The calculated t-value (2.63) is greater than the critical t-value (1.96) at 0.05 significance level and 38 degrees of freedom. Thus, the null hypothesis is therefore rejected that there is no significant difference between male and female in career progression in public audit firms in Nigeria. Therefore, we accept the alternative hypothesis that there is a significant difference between male and female in career progression in public audit firms. This result conforms to the studies of Whiting and Vugt (2006) and Stedham *et al.* (2003).

CONCLUSION AND RECOMMENDATIONS

The study examined gender and family structure on career progression in public audit firms in Nigeria. The literature reviewed provides strong evidence of gender and family structure on career progression in audit practice. Our research empirically substantiated the results of prior studies of the relationship between gender, family structure on dedication, productivity of auditors and the difference between male and female auditors on career progression in audit practice. The empirical analysis provided a linkage between gender and technical competence of auditors in public audit firms; family structure and productivity of auditors in public audit firms; family structure and dedication to duty of auditors in public audit firms and the difference between male and female on the career progression in public audit practice. On the basis of the empirical result, the study concludes that the gender of an individual does not affect the technical competence of auditors, but rather what is important is the level of education and experience of the auditor; family

structure affects the productivity of auditors. This is particular in respect to women that are married; family structure affects the dedication of auditors in public audit firms and there are differences between the growth and promotion of male or female in public audit firms. Therefore, on the basis of the conclusion drawn on the findings, the following recommendations were presented:

- Women auditors should manage to balance the two sides of their lives (family and career) in the best way for successful progression to the top of accounting firms.
- Women should be provided with more flexible working hours or they could do work at home or even share it with their colleagues.
- Accounting firms should design more gender-aware policies and programmes to support a work life balance, which may provide women with greater opportunities for career progression in audit practice.
- The cultural limitations in most African societies that hinder women from active participation in career development in their respective professions need to be minimized to ensure that women progress in their chosen profession to the pinnacle.
- Principal partners in audit firms should see women as intellectually capable of advancing to the top of audit firms and therefore should be given the opportunity to ascend to be partners.

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REFERENCES

Abidin, Z.Z., F. Penfort and M. Marzuki. 2008. Impediments to women accountants progression in Malaysia. *Asian J. Soc. Sci.*, 4(10): 159-174.

- Adeniyi, A.A., 2004. *Auditing and Investigation*. Value Analysis Consult Publishers, Lagos.
- Akinbuli, S.F., 2010. The effect of audit expectation gap on the work of auditors, the profession and users of financial information. *Niger. Accountant*, 43(4): 37-47.
- Almer, E.D. and S.E. Kaplan, 2002. The effects of flexible work arrangements on stressors, burnout and behavioural job outcomes. *Behav. Res. Account.*, 14: 1-34.
- Almer, E.D., J.R. Cohen and L.E. Single, 2003. Behavioral determinants that affect perceived career success of flexible work arrangement participants: The non-big five experience. *Audit. J. Practice Theor.*, 22(1): 1-23.
- Almer, E.D., J.R. Cohen and L.E. Single, 2004. Is the kids or the schedule? The incremental effect of families and flexible schedule on perceived career success. *J. Bus. Ethics*, 54: 51-65.
- Anderson-Gough, F., C. Grey and K. Robson, 2005. Helping them to forget: The organizational embedding of gender relations in public audit firms. *Account. Organ. Soc.*, 30: 469-490.
- Appah, E., 2010. An evaluation of audit expectation gap: Issues and challenges. *Int. J. Econ. Dev. Res. Invest.*, 1(2-3): 129-141.
- Asterious, D. and S. Hall, 2007. *Applied Econometrics: A Modern Approach*. Palgrave Macmillan, London.
- Awe, O.I., 2008. *The Theory and Practice of Auditing*. Gilgal Publications, Lagos.
- Azmi, I.A.G., S.H.S. Ismail and S.A. Basir, 2011. Facilitators of Women Career Advancement in Public Service: A Study in a Developing Country. A Paper Presented at the ICIMS, Singapore, September 17-18, 2011.
- Baridam, D.M., 2008. *Research Methods in Administrative Sciences*. Sheerbroke Associates, Port Harcourt.
- Blair-Loy, M., 2003. *Competing Devotions: Career and Family among Women Executives*. Harvard Business Press, Cambridge, MA.
- Bravo, D., C. Sanhueza and S. Urzua, 2005. Research proposal: Gender discrimination and economic outcomes in Chile. Inter-American Development Bank, Research Network Project, University of Chile.
- Brooks, C., 2008. *Introductory Econometrics for Finance*. 2nd Edn., Cambridge University Press, Cambridge, New York.
- Carnegie, G.D. and S.P. Walker, 2007. Household accounting in Australia: Prescription and practice from the 1820s to the 1960s. *Account. Audit. Accountability J.*, 20(1): 41-73.

- Carrera, N., I. Gutierrez and S. Carmora, 2001. Gender, the state and audit profession: Evidence from Spain (1942-1988). *Eur. Account. Rev.*, 10(4): 803-815.
- Chatterjee, S.K., 2010. *Educational Psychology*. Books and Allied (P) Ltd., New Delhi.
- Chung, J., 2001. An examination of potential public accounting recruits attitudes toward women. *Brit. Account. Rev.*, 33: 307-331.
- Cohen, J.R. and L.E. Single, 2001. An examination of the perceived impact of flexible work arrangements on professional opportunities in public accounting. *J. Bus. Ethics*, 32(4): 317-329.
- Greene, W.H., 2002. *Econometric Analysis*. 5th Edn., Prentice Hall, Upper Saddle River, New Jersey.
- Gujarati, D.N. and D.C. Porter, 2009. *Basic Econometrics*. 5th Edn., McGraw Hill, New York.
- Hayes, R., A. Schilder, R. Dassen and P. Wallage, 1999. *Principles of Auditing: An International Perspective*. McGraw-Hill Publishing Co., London.
- Haynes, K., 2004. Refiguring accounting and maternal bodies: The gender embodiment of accounting professionals. *Proceeding of Critical Perspectives on Accounting Conference*. New York, USA.
- Jaffer, N., A.R. Abdullah, M.Z.R. Seddek, M.N.M. Yatim and N. Husen, 2010. Women in internal auditing profession in Malaysia. *Int. Res. J. Financ. Econ.*, 40: 20-29.
- Jensen, K. and M. Matznevski, 2011. Are Men and Women Different as Leaders? Implications for HR. Retrieved from: [Http://www.imd.org](http://www.imd.org).
- Klein, M., 2003. Work/life issues dominates agenda at ASWA confab. *Account. Today*, 17(19): 3.
- Komori, N., 2008. Toward the feminization of accounting practice: Lessons from the experiences of Japanese women in the accounting profession. *Account. Audit. Accountability J.*, 21(4): 507-538.
- Komori, N. and C. Humprey, 2000. From an envelope to a dream note and computer-the award winning experiences of post war Japanese household accounting practices. *Audit. Accountability J.*, 13(4): 450-462.
- Kozhan, R., 2010. *Financial Econometrics-with Eviews*. Roman Kozhan and Publishing. Retrieved from: www.bookboon.com.
- Laigneau, A.S. and D. Vandermeirssche, 2006. *Evolution of the Career of Women in Audit*. HEC School of Management, Paris.
- Li, C. and B. Wearing, 2001. *The Glass Ceiling and Directors of Large UK Quoted Companies*. University of Essex Working Paper No. No 01/08, England, University of Essex.
- Limehan, M. and J.S. Waish, 2001. Key issues in the senior female international career move: A qualitative study in a European context. *Brit. J. Manage.*, 12: 85-95.
- Llewellyn, S. and S.P. Walker, 2000. Household accounting as an interface activity: The home, the economy and gender. *Crit. Perspect. Account.*, 11(4): 447-478.
- Macfie, R., 2002. Profile: Meet Jan Dawson. *The Independent*, 11, 18 and 23.
- Ndiyo, N.A., 2005. *Fundamentals of Research in Behavioral Sciences and Humanities*. Wusen Publishers, Calabar.
- Oakley, J.G., 2000. Gender-based barriers to senior management positions: Understanding the scarcity of female CEOs. *J. Bus. Ethics*, 27(4): 321-335.
- Okezie, B.N., 2008. *Audit and Assurance Services*. Concept Publishers, Aba.
- Oladele, J.O., 2005. *Fundamentals of Educational Psychology*. Johns-Lad Publishers Ltd., Ibadan.
- Oshisami, K., 2004. *Government Accounting and Financial Control*. Spectrum Books Ltd., Ibadan.
- Osuala, E.C., 2005. *Introduction to Research Methodology*. Africana-First Publishers Ltd., Onitsha.
- Rawlings, J.O., S.G. Pantula and D.A. Dickey, 1998. *Applied Regression Analysis: A Research Tool*. 2nd Edn., Springer-Verlag, New York.
- Schroeder, H.W., 2000. *The Restoration Experience Volunteers, Motives Values and Concepts of Nature*. In: Gobster, P.H. and R.B. Hull (Eds.), *Restoring Nature, Perspectives from the Social Sciences and Humanities*. Island Press, Washington, D.C., pp: 247-264.
- Sekaran, U., 2000. *Research Methods for Business*. John Wiley & Sons, United States of America.
- Smith, T., 2004. *Managing careers in a world of diversity and change-understanding the work life balance issues*. A Paper Presented at the Scandinavian Academy of Management Conference. Gothenberg, Sweden.
- Smithson, J., S. Lewis, C. Cooper and J. Dyer, 2004. Flexible working and gender pay gap in the accountancy profession. *Work Employment Soc.*, 18(1): 115-135.
- Stedham, Y., J. Yamamura and M. Satoh, 2003. *Gender and salary: A study of accountants in Japan*. *Proceedings of the Academy of Business and Administrative Studies International Conference*. Vancouver, B.C., Canada, Retrieved from: <http://www.sba.muohio.edu/abas/2003/proceeding.html>.
- Ukuta, A.J., 2011. *The effect of gender and family structure on career promotion in auditing: A study of selected accounting firms in FCT, Abuja*. Unpublished Thesis, Department of Accounting, University of Port-Harcourt, Nigeria.
- Vinnicombe, S. and V. Singh, 2003. Locks and keys to the boardroom. *Women Manage. Rev.*, 18(6): 325-333.

- Walker, S.P., 2003. Identifying the woman behind the railed-in desk: The proto-femisation of bookkeeping in Britain. *Account. Organ. Soc.*, 28(7-8): 743-772.
- Whiting, R.H., 2004. Implications of work/family strategies on chartered accountants career status. A Paper Presented at the 4th Asia Pacific Interdisciplinary Research in Accounting Conference, Singapore.
- Whiting, R.H. and C. Wright, 2001. Explaining gender inequality in the New Zealand accounting profession. *Brit. Account. Rev.*, 33: 191-222.
- Whiting, R.H. and O.V. Vugt, 2006. Effect of gender, family structure and firm affiliation, on career promotion in auditing. *Proceeding of Interdisciplinary Perspectives on Accounting Conference*. Cardiff, Wales, July 10-12.
- Windsor, C. and P. Auyeung, 2006. The effect of gender and dependent children on professional accountants career progression. *Crit. Perspect. Account.*, 17(6): 828-844.
- Wirth, L., 2001. *Breaking through the Glass Ceiling: Women in Management*. International Labour Office, Geneva.
- Wooldridge, J.M., 2006. *Introductory Econometrics: A Modern Approach*. Thomson Higher Education, Mason-USA.
- Wooten, L.P., 2001. What makes women-friendly public accounting firms tick? The diffusion of human resource management knowledge through institutional and resource pressures. *Sex Role.*, 45(5-6): 277-297.