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## Do Upbringing And Formal Education Influence Ethical Decision Making? A Study Of Professional Accountants In Nigeria

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**Abstract:** This paper examined the influence of upbringing and education on specific processes, named ethical recognition, ethical judgment, and ethical intention, involved in ethical decision making of professional accountants in Nigeria. Primary data were obtained from 329 professional accountants with the aid of a structured questionnaire containing four different vignettes of ethical dilemmas. The results of the Kendall's tau-b correlation analysis and Kruskal-Wallis and Jonckheere-Terpstra tests showed that strictness of upbringing and level of education significantly influenced the ethical decision-making process of professional accountants. The paper concluded that upbringing and education are significant determinants of ethical recognition and ethical intention, and not ethical judgment. Therefore, stricter upbringing and higher level of education may aid ethical decision making in dilemmatic situations at the workplace. Future theorising and empirical study in ethical decision-making should consider the roles of upbringing and education.

**Keywords:** *upbringing, formal education, ethical decision-making, professional accountants, Nigeria*

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### 1. Introduction

The pervasive news headlines and reports of corporate scandals, coupled with the alleged roles played by professional accountants in these scandals, have attracted extensive public criticism of the accounting profession (Bakre, 2007; Vladu *et al.*, 2017; Oboh & Ajibolade, 2018). Particularly, after the Enron and Andersen debacles in 2001, which attracted a number of critical minds from the academia and corporate world, and from governments all over the world, there was a significant surge in the search for ethics in the accounting profession (Dellaportas, 2006; Ajibolade, 2008; Yanga & Wu, 2009; Onyebuchi, 2011; Uwuigbe & Ovia, 2011; Akpata, 2014; Musbah *et al.*, 2016). Critical accounting scholars have censured professional accountants over their involvement in abetting unethical financial practices in organisations. They argued that these professionals connive with the management and directors of companies, through the instrumentality of creative accounting, to manipulate and overstate companies' accounts to derive private economic gains (Bakre, 2007; Sikka, 2009; Adeyeye, Adeyemi & Otusanya, 2010; Otusanya & Lauwo, 2010; Otusanya & Uadiale, 2014; Griffin, 2015). Documented evidence has shown that on account of unethical accounting practices, there has been a ubiquitous rise in the degree of tax evasion, money launderings and collapses of companies (Bakre, 2007; Sikka, 2017; Otusanya, 2010; Ogunleye, 2015; Griffin, 2015; Oboh & Ajibolade, 2018). While the revenues lost due to unethical accounting practices are hard to estimate, Sikka & Lehman (2015) reported that it is estimated to be running at around \$2.6 trillion annually.

Although, while there are controversies among researchers over the role of professional accountants in corporate scandals, critical minds have sought to understand the drive and basis why highly skilled professionals, who are supposed to protect the interest of the public, would engage in unethical accounting practices (Bakre, 2007; Otusanya, 2010). Accordingly, considerable research efforts have been directed towards understanding the cognitive reasoning, moral development, and ethical decision-making processes of professional accountants (Marques & Azevedo-Pereira, 2009; Craft, 2013; Musbah *et al.*, 2016). Some researchers have advocated in response to the growing concern for ethics in the accounting profession, for the need of educational intervention in developing and moulding the moral disposition of future professional accountants (Dellaportas, 2006; Yanga & Wu, 2009).

While the role of formal education in ethical decision-making has received considerable research attention, it has been mostly from the developed countries (Craft, 2013; Lehnert *et al.*, 2015). Evidence from developing countries appears to be sparse (Nathan, 2015; Musbah *et al.*, 2016; Oboh & Ajibolade, 2018). Also, the role of



upbringing in the ethical decision making process has received little research attention in the fields of business and accounting ethics (Obboh & Ajibolade, 2018). In Craft (2013) and Lehnert et al.'s (2015) reviews of about 225 empirical literature on ethical decision making, there appears to be no study on the role of upbringing in the process of decision-making regarding ethical issues in accounting. Furthermore, in Nigeria, despite the consistent ranking of the nation as among most corrupt in the world (see Transparency International, 2017) and the alleged roles being played by professional accountants in aiding corrupt practices in the private and public sectors, the response toward addressing the issues of unethical accounting practices has not received the most desired attention. There is still a paucity of accounting ethics literature to guide our understanding on the ethical issues in Nigeria. Therefore, this paper, using data from Nigeria, a developing country, examined the role of strictness of upbringing and formal education in the ethical decision-making process of professional accountants. It sought to contribute to the existing literature on business ethics with particular focus on ethics in accounting in Nigeria.

Some of the specific contributions of this paper to accounting ethics literature are as follows. First, it added to the sparse research on accounting ethics in developing countries by providing some empirical evidence that would enhance our understanding on the association between strictness of upbringing, formal education and the ethical decision making process of professional accountants. Second, in line with Musbah et al. (2016), the paper examined three stages of Rest's ethical decision-making (EDM) model as against one or two often examined in accounting ethics literature. Third, the paper developed and pretested a new vignette of ethical dilemma (see Appendix A, vignette 3), which took into account the common ethical issues found in organisations in Nigeria. Future research may further test this vignette in measuring the stages of Rest's ethical decision-making model. The remainder of this paper is structured as follows. The second section presents a brief discussion on the accounting profession in Nigeria, and examines Rest's (1979, 1986) ethical decision-making (EDM) model and Kohlberg's (1969) theory of cognitive reasoning and moral development (CMD). The section also presents a review of prior literature on ethical decision-making related to accounting. The third section describes the research design, data collection process, and the method of data analysis. The fourth section presents the results of the data analysis followed by a discussion in the fifth section. The conclusion is presented in the sixth section.

## **2. Literature Review**

**Accounting Profession in Nigeria:** According to Kigbu (2010), professionalism in accounting is the display of expertise and excellence in recording financial transactions and related activities. Generally, the intellectual characteristics required of a professional accountant are intelligence, true/fair judgment, creativity, intuition, integrity, high ethical standard, and having respect for others. In Nigeria, professional accountants are those designated as chartered (or certified in the case of ANAN) and licenced to practice accounting by an authorised professional accounting body with a chartered status. Usually, a membership handbook, containing a set of rules and regulations and a standard code of ethics, guides these professional accountants in the discharge of their professional responsibilities to the profession and to the public (Bakre, 2007; Otusanya, 2010).

In Nigeria, the two major professional accounting bodies charged with the responsibilities of accounting practices are the Institute of Chartered Accountants of Nigeria (ICAN) and the Association of National Accountants of Nigeria (ANAN) (International Federation of Accountants, 2017; Otusanya & Lauwo, 2010). According to Bakre (2007), the Federal Parliament Act No. 15 of 1965 gave the ICAN the charter status and monopoly to regulate the accountancy profession in Nigeria and to make provisions to take disciplinary actions against its erring members. However, on account of the several criticisms levelled against ICAN regarding its failure to measure up with its charter status and monopoly (that is, failing to ensure ethical professional conduct among its members), the Nigerian government was forced to occasionally intervene in the professionalization and practice of accountancy in Nigeria. The outcome of one of such interventions was what granted the same power of self-regulation of accountancy in Nigeria to ANAN by Decree No. 76 of 1993 on 25th August 1993 (Association of National Accountants of Nigeria, 2017; Bakre, 2007).

By representation, ICAN and ANAN are both members of the Financial Reporting Council of Nigeria (FRCN), which is charged with the responsibilities of developing and publishing accounting and financial reporting



standards to be observed in the preparation of financial statements of public entities in Nigeria; and for related matters (FRCN, 2018). They (ICAN and ANAN) both collaborate with other stakeholders in the audit and financial reporting standard-setting processes and with anti-corruption agencies to promote good standards, professionalism, and integrity in the accountancy profession (IFAC, 2017). Although, both ICAN and ANAN claim to have standard Codes of Ethics to guide their members in the performance of their professional duties, which include issues of integrity, due diligence and honesty. However, critical accounting scholars have argued that professional accountants deliberately engage in unethical accounting practices for private economic gains, and that both ICAN and ANAN have maintained compromising stance in disciplining erring members (Bakre, 2007; Otusanya, 2010; Otusanya & Lauwo, 2010; Ogunleye, 2015; Oboh & Ajibolade, 2018). Accordingly, in order to survive in the modern competitive accountancy market environment, ICAN and ANAN must convince their Nigerian clientele that they are determined to ensure high ethical standard among their members and to continue to act in the interest of the Nigerian public (Bakre, 2007).

**Theoretical Framework:** Rest's (1979) ethical decision-making (EDM) model is a theoretical model of decision-making that involves four distinct psychological processes, which are (1) ethical recognition; (2) ethical judgment; (3) ethical intention; and (4) ethical behaviour. The model was developed based on Kohlberg's cognitive reasoning and moral development (CMD) theory to describe individuals' cognitive stages and decision-making processes when faced with ethical dilemmas in organisations (Craft, 2013; Schwartz, 2016). Ethical recognition, being the first stage in Rest's model, is fundamental and central in initiating the EDM process. It involves an individual's ability to recognise that a potential decision or action could affect the welfare, interests, and expectations of someone else directly or indirectly in a way that may conflict with one or more ethical principles (Rest, 1982). Ethical judgment, being the second stage, is the determination of the ethically appropriate course of action among potential alternatives (Schwartz, 2016). Ethical intention, which is the third stage is the subjective probability that a given behavioural alternative will be performed (Musbah, 2010), while ethical behaviour, which is the fourth and final stage is where an individual engages in a proper action because of his/her intentions (Rest, 1986). This paper examined the first three (ethical recognition, ethical judgment, and ethical intention) of the four stages of Rest's ethical decision-making (EDM) model. The fourth stage was exempted due to measurement difficulty (Musbah et al., 2016). Besides, most behavioural theories share a belief that the single best predictor of an individual's behaviour is his intention to engage in the behaviour, which is the decision to act or not act in a particular way (see Ajzen & Madden, 1986; Ajzen, 1991, 2011, 2012; Flory et al., 1992; Ajzen & Fishbein, 2005; Buchan, 2005; Musbah, 2010).

**Theory of Cognitive Reasoning and Moral Development (CMD):** The theory of cognitive reasoning and moral development (CMD) was propounded by Kohlberg in 1958. Kohlberg proposes, as a reformulation of Piaget's progression from heteronomy to autonomy, a developmental model in six stages with three levels of morality (pre-conventional, conventional, and post-conventional levels). The theory holds that moral reasoning is the basis for ethical judgment and behaviour (Weber, 1991). Kohlberg argued that an individual can only pass from one stage (a lower stage) to the next stage (a higher stage) based on the developments of his/her beliefs systems (Kohlberg, 1973; Barron, 2015; Schepers, 2017). The first level of morality, which is the pre-conventional level, holds that individuals are responsive to cultural rules and labels of 'good' and 'bad,' 'right' or 'wrong,' especially when expressed in terms of physical or hedonistic consequences of action (punishment, rewards, and exchange of favours) (Kohlberg, 1973). This level consists of the first and second stages of moral development: Stage 1, punishment and obedience orientation, and Stage 2, instrumental relativist orientation (Weber, 1991).

At the Conventional level, which is the second level of morality; individuals become aware of the interest of others and their duties to society. They seek to maintain the expectations of their families, groups, or nation, which is perceived as valuable in its own right, regardless of immediate and obvious consequences (Kohlberg, 1973). This level consists of the third and fourth stages of moral development: Stage 3, good boy---nice girl orientation, and Stage 4, law and order orientation. The Post-conventional level, which is the third and final level of morality, holds that moral values and principles are defined to have legitimacy and application separable from the authorities of the groups or persons holding these principles, and from the individual's own identification with these groups (Weber, 1991). These principles are generally agreeable to individuals who seek to live in a fair and just society, and they withstand tests of logical comprehensiveness (Kohlberg, 1973). This level consists of the fifth and sixth stages of moral development: Stage 5, social-contract legalistic



orientation, and Stage 6, universal ethical principle orientation (Mintz & Morris, 2008). Over several decades, since Kohlberg projected his CMD theory, business ethics researchers have been able to identify and examine factors associated with the moral development and disposition of individuals in organisations (Craft, 2013). Several factors, including individual demographics, organisational characteristics, and environmental changes and conditions have been found to influence individuals' advances in cognitive reasoning and moral judgment (Trevino, 1986; Musbah et al., 2016). Therefore, applying the CMD theory, this paper proposes that strictness of upbringing and educational level may influence the cognitive reasoning, moral development, and decision-making processes of professional accountants. This proposition is projected in line with the arguments presented at the pre-conventional and conventional levels of morality, where through the process of education (formal or informal, structured or unstructured, traditional or modern), a professional accountant may become aware that certain actions are morally accepted and others are not.

Arguably, the initial home discipline or training regarding moral issues received at early childhood may contribute in moulding and defining the moral disposition of a professional accountant even before having a formal contact and interaction with the wider society. For example, a professional accountant may learn, during his/her growing up, that stealing or lying is unethical and may imbibe a discipline not to steal or tell lies based on the attached consequences to these acts. Ironically, while some parents may strictly discourage their children from stealing or lying, some others may encourage their own children to lie in order to service their (the parents) selfish interest, and these acts may have long lasting effects on the moral disposition of the children. Commonly, in many anecdotal reports, some children who were caught stealing, lying, or cheating have had the chance to testify how they learnt some of these unethical behaviours from their parents. Likewise, the moral behaviours and dispositions of some of the outstanding and successful business entrepreneurs can be traced to discipline the received during their growing up days.

In fact, Kohlberg argued that every individual starts his/her moral development phase from the pre-conventional level to the conventional level, and then to the post-conventional level. He noted further that individuals can learn and develop moral values through training and education, which supports the idea that through some educational interventions, the moral disposition of professional accountants may be enhanced. This is also supported by educational psychologists, who share a belief that children are exposed to moral issues via a formal educational system, where their cognitive reasoning and morality are being developed and refined along with societal norms and national values. Thus, this theory (CMD) supports this paper's investigation of the roles of upbringing and formal education in the ethical decision-making process of professional accountants in Nigeria. Although, while Kohlberg's CMD theory has been established widely in academic discourses and has dominated the area of ethical research in psychology and business, critics have argued against the stage sequencing, subjectivity in the scoring method, gender, and cultural biases (Rest, 1982; Gilligan, 1982; Ajzen, 1991; Jones, 1991). However, despite these criticisms, Kohlberg's CMD theory has been clarified and it is widely used and accepted in the field of moral development (Weber, 1991; Musbah, 2010). Examples of prior studies that have applied the Kohlberg CMD theory in accounting ethics research in developing countries include Ajibolade (2008), Ogunleye (2015), Musbah et al. (2016) and Oboh and Ajibolade (2018).

**Prior Empirical Literature on Ethical Decision-Making (EDM):** Several business and accounting ethics studies have been conducted in relation to Rest's (1979, 1986) EDM model since the past three decades, and a number of personal variables such as age, gender and experience have been found to affect each stage of the model (Lehnert et al., 2015; Craft, 2013). Consequently, the variables focused in this paper are upbringing and education and how they influence the ethical decision making process of professional accountants.

**EDM and Upbringing:** Upbringing experience (strict or not strict) and environment (rural, urban, or both) are among the individual variables with little research attention in the field of business and accounting ethics. 'Upbringing' or home training as a variable is assumed to play significant role in influencing individuals' ethical decision-making process and behaviour (Castle, 1996; Vasiliou, 1996; Elliott, 2006; Ilmi, 2011). In the twenty-second chapter of Proverbs verse six (Holy Bible, King James Version), it says that '*train up a child in the way he should go: and when he is old, he will not depart from it.*' From this passage, it could be interpreted to suggest that upbringing or home education or training is a vital part of the moral development process of individuals. That is, before an individual begins to make contact with the society, or be aware of statutory and



societal laws, the home is the first school (informal) where moral values and virtues are inculcated into the individual, and the parents, siblings and other relatives are the informal tutors (Vasiliou, 1996; Rydström, 2001). According to many anecdotal reports, Arthur Andersen's mother had a significant influence on his moral beliefs and conduct. She had schooled him in a Scandinavian axiom — '*Think straight, talk straight.*' As documented, the moral values Arthur learnt from his mother during his growing up days, guided him into building one of the world's largest accounting firms before the Enron scandal in 2001 that led to the demise of the firm (Boyd, 2004; Trevino & Blown, 2004). To a considerable extent, the moral disposition of an individual has a link to his/her upbringing experience and environment. In educational psychology, it is generally accepted that all children are defined as blank slates (*tabula rasa*) that are in need of moral inscription. Both teachers and a child's family members are acknowledged as essential means by which children can be imprinted with right moral values and, thus, socialised (Rydström, 2001).

This argument is also supported by Kohlberg's CMD theory, which holds that an individual's morality changes with advances in age and experience (Kohlberg, 1973), which moral education (formal or informal, structured or unstructured, traditional or modern) plays a vital role in internalising moral values and virtues (Baier, 1974; Cooper, 1985). For example, at the pre-conventional level of morality, which all humans start from in cognitive reasoning and moral development, an individual's morality is guided by the strong parental emphasis on punishment for wrong deeds, and/or reward for good deeds. The individual then grows up to view morality based on the attached consequences – punishment or reward. If at growing up, an individual had a strict upbringing experience of 'right' or 'wrong' actions; the individual would have a sense of judgment on ethical issues based on the degree of punishment meted to every unethical deed, or benefit rewarded for choosing to be ethical (Kohlberg, 1973; Weber, 1991).

According to John McDowell (cited in DeSouza 2013), drawing on Aristotle's *Nicomachean* ethics, argued that individuals acquire an ethical character during their upbringing, a process that involves the moulding of motivational and evaluative propensities which results in the formation of the practical intellect and the concomitant acquisition of practical wisdom. Usually, the virtuous character that is acquired does not consist merely of habitual inclinations, but of sensitivity to certain kinds of reasons for acting, which both motivational and evaluative propensities are shaped. McDowell argued further that practices, dispositions, and virtues are acquired during upbringing; an idea, which supports the conjecture that upbringing, is a significant background factor that contributes in shaping and defining an individual's moral disposition. Although, while there are strong supports to suggest that an individual's upbringing plays a significant role in his/her ethical decision-making process (Vasiliou, 1996; Rydström, 2001), there are only few empirical evidence available in the field of business and accounting ethics (Ford & Richardson, 1994; Loe et al., 2000; O'Fallon & Butterfield, 2005; Craft, 2013; Lehnert et al., 2015). The few available empirical studies conducted in relation to upbringing and ethical decision-making include the study of Guyot et al. (2011), which used business students' precepts to predict ethical decision-making in the United States. In the study, among thirteen individual variables examined, upbringing was among the four variables that significantly predict the students' ethical decision-making process. Similarly, the study of Choudhury et al. (2012) examined the impact of social and demographic variables on ethical decision making of business students in India. The results of the study also indicated that upbringing was among the three individual variables that significantly predict international business students' ethical decision-making process.

In their study on ethical challenges of practising accountants, Adeyeye, Adeyemi & Otusanya (2010) reported that family background impacted negatively on the ethical behaviour of accountants in Nigeria. Apparently, this may be interpreted to suggest that upbringing or home training significantly influence ethical decision making; whether positively or negatively may depend largely on the kind (strict or not strict, restricting or indulging, etc.) of upbringing or home training. There is still need for more empirical research to enhance our understanding on the role of upbringing in the ethical decision-making process of professional accountants. This paper therefore, as a response to this need, hypothesises that:

- H1a: Strictness of upbringing is significantly related to ethical recognition.
- H1b: Strictness of upbringing is significantly related to ethical judgment.
- H1c: Strictness of upbringing is significantly related to ethical intention.



**EDM and Education:** The role which formal education or academic qualification plays in ethical decision-making has been very controversial in business ethics discourses (Ford & Richardson, 1994; Karaibrahimoglu et al., 2009; Lehnert et al., 2015). However, Kohlberg's CMD theory suggests a positive relationship between education and ethical judgment and moral development (Kohlberg, 1973). That is, the length of formal education may affect individuals' ethical judgment (VanSandt et al., 2006; Musbah et al., 2016). In Kracher et al. (2002), factors related to the cognitive moral development of business students and business professionals in India and the United States were examined. The results suggested that education related positively and significantly with defining issues test scores (ethical judgment). Razzaque & Hwee (2002) found education to have a positive influence on ethical judgment of Singaporean purchasers in four of six scenarios, while Forte (2004) found no statistically significant relationship between education and ethical climate types, and the moral reasoning ability of managers. The review of O'Fallon & Butterfield (2005) found that twelve of eighteen studies reported that education related positively to ethical decision-making, while on the type of education, ten of fourteen studies reported little or no effect on the ethical decision-making process.

VanSandt et al. (2006) examined four potential moderators (gender, age, education level, and exposure to formal ethics training) and found only education level to be a significant moderating variable between ethical work climate and moral awareness, while exposure to formal ethics training was found not to be a significant moderator between ethical work climate and moral awareness. In a survey of the perception of ethical behaviour of future Nigerian professional accountants, Ajibolade (2008) reported that accounting education in Nigerian tertiary institutions does not positively impact the ethical sensitivity of future Nigerian accountants. Marques & Azevedo-Pereira (2009) reported that more educated chartered accountants were stricter than less educated chartered accountants in four scenarios. However, they found a limited statistically significant relationship between education level and ethical standards. Mintchik & Farmer (2009), in their study suggested that a stand-alone course of ethics in accounting education is warranted since higher moral reasoning does not automatically follow from extended technical education and improved critical thinking skills. This simply suggests that beyond formal education, introducing ethics course in accounting education may make a difference in moral reasoning. Pierce & Seeney (2010) reported that degree type (level of education) significantly associated with perceived ethical intensity, ethical decision-making, and perceived ethical culture of trainee accountants in Ireland. Choudhury et al. (2012) reported that grade point average (GPA) and educational level are not significant determinants of ethical intentions for students. Craft (2013) reported that education has both a positive and neutral impact on ethical decision-making.

Ogunleye (2015) examined the influence of situational and demographic factors in the ethical perception and predisposition of Nigerian accountants. The results indicated that entry level accounting students had a higher ethical mean score than the final year accounting students, suggesting a negative relationship between knowledge of tertiary accounting courses and ethical predisposition of Nigerian accountants. In Lehnert et al.'s (2015) review, education was generally found to have little impact on the ethical decision-making process. Musbah et al. (2016) also found few significant results relating to education and ethical decision-making process of Libyan management accountants. In general, regarding the influence of level of education in the ethical decision making process, some studies reported significant results (Craft, 2013; Musbah et al., 2016), while some reported no significant results (O'Fallon & Butterfield, 2005; Lehnert et al., 2015), and others reported mixed and inconsistent results (Loe et al., 2000; Craft, 2013). Therefore, given the results regarding education and ethical decision-making are somewhat mixed and inconclusive, this paper, in line with Kohlberg's CMD theory, hypothesises that:

H2a: Level of education is positively related to ethical recognition.

H2b: Level of education is positively related to ethical judgment.

H2c: Level of education is positively related to ethical intention.

The addition of this paper to the debate on the influence of education in the ethical decision-making process of professional accountants is from the perspective of the ethical content and exposure at the different levels of education (first degree, master degree, and Doctorate degree). For example, in Nigeria, while the Benchmark Minimum Academic Standards (BMAS) by the National Universities Commission (NUC) makes no provision for a standalone ethics course in the curriculum of the accounting undergraduate programme, accounting ethics courses are embedded in the curriculum of the accounting postgraduate programme



(Ajibolade, 2008; Ogunleye, 2015). Also, from some of the studies reviewed in this paper, it could be that the sampled respondents (being undergraduate students) may be responsible for the mixed and inconclusive findings. For example, some of the studies (e.g. Ajibolade, 2008; Choudhury et al., 2012) made use of undergraduate students, who are inexperienced and unexposed to higher course contents on ethical issues in accounting. Consequently, using undergraduate students' population to generalise on the role of education in the ethical decision making process may be limited in some ways.

### **3. Research Data and Methods**

Primary data were collected through a cross-sectional survey from professional accountants who are members of the two oldest and foremost professional accounting bodies in Nigeria, the Institute of Chartered Accountants of Nigeria (ICAN) and the Associations of National Accountants of Nigeria (ANAN) (IFAC 2017). The recent records of ICAN membership showed that the institute has about 41,774 certified members (Institute of Chartered Accountants of Nigeria, 2017), while that of ANAN showed about 20,049 certified members (Association of National Accountants of Nigeria, 2017), giving a population of 61,823 professional accountants. Yamane's (1967) formula was used to determine the sample size as 397 practicing accountants, while proportionate stratified sampling method was used based on the population of each professional accounting body to determine 268 ICAN and 129 ANAN members to represent each professional accounting body respectively. Three hundred and ninety seven copies of questionnaire were administered and 352 (88.66%) copies were filled and returned (ICAN: 237 & ANAN: 115), while 329 (82.87%) copies were found to be valid and usable for analysis (ICAN: 224 & ANAN: 105). This response rate was considered satisfactory because, on the average, in business ethics studies the response rate has been found to range from about 21% to 80% (Bampton & Cowton, 2013; Musbah et al., 2016).

Prior empirical ethics studies provided measures for the variables of the study. Three pre-tested vignettes of ethical dilemmas were adopted from Flory et al. (1992) and one vignette was developed specifically for the paper, which concerned different ethical issues commonly found at the workplace in developing countries, with particular reference to Nigeria (see Appendix A, Vignette 3). The first vignette included issues of approving a questionable expense report, and the second vignette included issues of manipulating company books. The third vignette included issues of creative accounting practices, while the fourth included issues of extending questionable credit. A pilot study was conducted on 20 chartered accountants to pre-test the questionnaire, and feedback comments and suggestions were used to revise the questionnaire.

**Variable Measurements:** The questionnaire was designed to collect data on the respondents' personal demography including their upbringing experience and level of education. Upbringing was measured by asking the respondents to indicate their upbringing experience on a four-scale measure {from 'very strict' (4) to 'not strict at all' (1)}. Level of education was measured by asking the respondents to indicate their highest level of education on a three-scale measure {'first degree' (1), 'master degree' (2), and 'Ph.D.' (3)}. To limit the tendency of bias in their responses, the respondents were fully assured in a cover letter of the confidentiality of their responses, and were informed of the purpose of the study, which is strictly academic, and the questionnaire has no mark of identification.

As to the EDM stages – ethical recognition (sensitivity), ethical judgment, and ethical intention, the respondents were asked to indicate their level of agreement regarding the ethical issues in the four vignettes on a 5-point Likert scale {from 'strongly agree' (5) to 'strongly disagree' (1)}. Single-item scale was used to measure each stage of the ethical decision-making process, which does not require the computation of Cronbach coefficient alpha (see Musbah et al., 2016). As in prior studies, ethical recognition was measured by asking the respondents to indicate whether the situation in each vignette involves an ethical issue. Ethical judgment was measured by asking the respondents to indicate whether they agreed with the decision of the decision maker in each vignette, while ethical intention was measured by asking the respondents to indicate whether they would make the same decision if they were the decision maker in each vignette (reversed-coded) (Singhapakdi et al., 1996; Musbah et al., 2016).



### 3. Data Analysis Method

Descriptive statistical analysis was performed on data collected to present a summary of the respondents' personal demography and to provide a general description of the stages of EDM based on upbringing and level of education. The inferential statistical analysis was performed at a 0.05 level of significance on the data collected. Kendall's tau-b correlation was performed to establish relationship between upbringing, level of education and EDM stages. Kruskal-Wallis test was performed to test for differences in the EDM process based on upbringing and level of education, while Jonckheere-Terpstra test was used as a support to indicate whether the trend in the data is significant or not. These tests are the non-parametric equivalent of One-way between groups ANOVA test (Field, 2009). These tests were used in order to overcome the shortcomings of earlier studies, which generally used independent samples t-test, ANOVA, and multiple regression analysis even without satisfying the assumptions to justify their use (Musbah, 2010; Craft, 2013).

### 4. Results

**Descriptive Statistics:** Table 1 presents the summary of the respondents' demographic composition.

**Table 1. Respondents Demography**

		No. of Respondents	%
Gender:	Female	92	28.0
	Male	237	72.0
	<b>Total</b>	<b>329</b>	<b>100</b>
Age Bracket:	< 30 years	34	10.4
	30-< 40 years	131	39.8
	40 - 50 years	110	33.4
	> 50 years	44	13.4
	<b>Total</b>	<b>319*</b>	<b>9.07</b>
Professional Membership:	ICAN	224	68.1
	ANAN	105	31.9
	<b>Total</b>	<b>329</b>	<b>100</b>
Level of education:	First Degree (B.Sc., HND)	191	58.1
	Master Degree (M.Sc., MBA)	132	40.1
	Ph.D. (or Equivalent)	6	1.8



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<b>Total</b>		<b>329</b>	<b>100</b>
Upbringing:	Very strict	66	20.1
	Strict	189	57.4
	Not too strict/not strict at all	72	21.9
	<b>Total</b>	<b>327*</b>	<b>99.4</b>
Accounting specialization:	Financial accounting/reporting	130	39.5
	Management accounting	48	14.6
	Auditing	58	17.6
	Taxation	53	16.1
	Forensic accounting	4	1.3
	Others	36	10.9
<b>Total</b>		<b>329</b>	<b>100</b>

\*Missing values **Source:** Research Survey (2017)

From Table 1, there are more male {237(72%)} respondents than females {92(28%)}, which simply reflects the general gender demography in the accounting profession in Nigeria. Regarding age grouping, 34(10.4%) respondents are less than 30 years, 131(39.8%) falls within 30 and 39 years, 110(33.4%) are within 40 to 50 years, and 44(13.4%) are aged 50 and above. This simply suggests that 241(77.2%) respondents are within the active age group of 30 to 50 years. In relation to types of professional membership, 224(68.1%) are members of the Institute of Chartered Accountants of Nigeria (ICAN), while 105(31.9%) are members of the Association of National Accountants of Nigeria (ANAN). As to level of education, 191(58.1%) are first-degree holders (B.Sc., HND), 132(40.1%) are master degree holders (M.Sc., MBA), while 6(1.8%) are Ph.D. (or Equivalent) holders. This simply indicates that the respondents are a group of learned and exposed individuals. Concerning the respondents' upbringing, 66(20.1%) had a 'very strict' upbringing, 189(57.4%) had a 'strict' upbringing, while 72(21.9%) had a 'not too strict/not strict at all' upbringing. Regarding areas of accounting specialisation, Table 1 shows that 130(39.5%) are specialised in financial accounting/reporting, 48(14.6%) in management accounting, 58(17.6%) in auditing, 53(16.1%) in taxation, 4(1.3%) in forensic accounting, and 36(10.9%) in other areas of accounting specialisation. Generally, the respondents' demographic composition presented in Table 1 largely validates their responses to the ethical issues raised in the questionnaire. That is, the data were obtained from individuals qualified to respond adequately to the questionnaire items.

**Cross-Tabulation Analysis of Ethical Recognition** In each of the four vignettes, the respondents' ability to recognise the ethical problem (ethical sensitivity) was assessed based on their upbringing and level of education. Table 2 presents the results of the cross-tabulation analysis.



**Table 2. Descriptive Analysis for Ethical Recognition**

	VIGNETTES				
	V1	V2	V3	V4	Combined Measures
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)
<b>Upbringing</b>					
Very strict	4.58(.703)	4.61(.765)	4.61(.677)	4.26(1.02)	4.51(.597)
Strict	4.57(.594)	4.68(.522)	4.65(.656)	4.23(.945)	4.53(.491)
Not too strict/not strict at all	4.43(.819)	4.21(1.13)	4.36(.924)	4.06(1.02)	4.26(.692)
<b>Level of educational</b>					
First degree	4.47(.745)	4.49(.826)	4.50(.781)	4.15(.953)	4.40(.596)
Master degree	4.64(.540)	4.65(.665)	4.69(.655)	4.27(1.01)	4.56(.523)
Ph.D. degree	4.83(.408)	4.83(.408)	4.83(.408)	4.50(.837)	4.75(.500)

N = 329; M = Mean; SD = Standard deviation; Scale: Max. = 5; Min. = 1. **Source:** Research Survey, 2017

From Table 2, it is seen that professional accountants with 'strict' and 'very strict' upbringing recognised the ethical problems in the four vignettes better than those with 'not too strict/not strict at all' upbringing. The results of the combined measures indicated that professional accountants with 'strict' and 'very strict' upbringing are more ethically sensitive than those with 'not too strict/not strict at all' upbringing (combined measures: very strict:  $\mu = 4.51$ ; strict:  $\mu = 4.53$ ; not too strict/not strict at all:  $\mu = 4.26$ ). This simply suggests that upbringing may have a significant influence on ethical sensitivity. Table 2 also shows that professional accountants with Ph.D. degree recognised the ethical problems in the four vignettes better than those with first and master degrees, while those with master degree recognised the ethical problems in the four vignettes better than those with only first degree. The results of the combined measures indicated that Ph.D. degree holders are more ethically sensitive than master degree holders, while master degree holders are more ethically sensitive than first-degree holders (combined measures: first degree:  $\mu = 4.40$ ; master degree:  $\mu = 4.56$ ; Ph.D.:  $\mu = 4.75$ ). This simply suggests that level of education may have a significant positive influence on ethical sensitivity.

**Cross-Tabulation Analysis of Ethical Judgment:** The respondents' ability to make ethical judgment in each of the four vignettes was assessed based on their upbringing and level of education. Table 3 presents the results of the cross-tabulation analysis. From Table 3, it is seen that professional accountants with 'strict' and 'very strict' upbringing made better ethical judgments in the four vignettes than those with 'not too strict/not strict at all' upbringing. The results of the combined measures indicated that professional accountants with 'strict' and 'very strict' upbringing made better ethical judgment than those with 'not too strict/not strict at all' upbringing (combined measures: very strict:  $\mu = 4.04$ ; strict:  $\mu = 4.03$ ; not too strict/not strict at all:  $\mu = 3.84$ ). This simply suggests that upbringing may have a significant influence on ethical judgment. Table 3 also shows that professional accountants with Ph.D. degree made better ethical judgment in vignettes 1, 2 and 3 than those with first and master degrees, while those with master degree made better ethical judgment in vignette 4 than those with first and Ph.D. degrees. The results of the combined measures indicated that



professional accountants with Ph.D. degree made better ethical judgment than those with first and master degrees (combined measures: first degree:  $\mu = 3.95$ ; master degree:  $\mu = 4.05$ ; Ph.D.:  $\mu = 4.17$ ). This simply suggests that level of education may have a significant positive influence on ethical judgment.

**Table 3. Descriptive Analysis for Ethical Judgment**

	VIGNETTES				
	V1	V2	V3	V4	Combined Measures
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)
<b>Upbringing</b>					
Very strict	4.45(.727)	3.97(1.17)	3.88(1.03)	3.89(1.04)	4.04(.683)
Strict	4.37(.678)	4.04(1.05)	3.92(1.04)	3.79(1.05)	4.03(.636)
Not too strict/not strict at all	4.32(.766)	3.76(1.16)	3.65(1.06)	3.63(1.07)	3.84(.641)
<b>Level of educational</b>					
First degree	4.31(.706)	4.01(1.03)	3.80(1.05)	3.69(1.04)	3.95(.627)
Master degree	4.48(.704)	3.90(1.20)	3.92(1.06)	3.91(1.04)	4.05(.686)
Ph.D. degree	4.50(.548)	4.17(.983)	4.33(.816)	3.67(1.37)	4.17(.540)

N = 329; M = Mean; SD = Standard deviation; Scale: Max. = 5; Min. = 1. **Source:** Research Survey, 2017

**Cross-Tabulation Analysis of Ethical Intention**

In each of the four vignettes, the respondents' intentions towards ethical decision-making were assessed based on their upbringing and level of education. Table 4 presents the results of the cross-tabulation analysis.

**Table 4. Descriptive Analysis for Ethical Intention**

	VIGNETTES				
	V1	V2	V3	V4	Combined Measures
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)
<b>Upbringing</b>					
Very strict	3.98(1.17)	3.94(1.14)	3.59(1.15)	3.75(1.12)	3.81(.831)
Strict	4.07(1.07)	3.83(1.19)	3.63(1.20)	3.75(1.15)	3.82(.835)
Not too strict/not strict at all	3.88(1.13)	3.58(1.25)	3.36(1.17)	3.38(1.22)	3.55(.879)
<b>Level of educational</b>					



First degree	3.86(1.13)	3.75(1.17)	3.54(1.17)	3.56(1.14)	3.68(.830)
Master degree	4.23(1.01)	3.88(1.23)	3.60(1.22)	3.84(1.15)	3.89(.854)
Ph.D. degree	3.83(1.17)	4.00(1.10)	4.17(1.17)	3.33(1.86)	3.83(1.14)

N = 329; M = Mean; SD = Standard deviation; Scale: Max. = 5; Min. = 1. **Source:** Research Survey, 2017

From Table 4, it is seen that in the four vignettes professional accountants with 'strict' and 'very strict' upbringing are more predisposed in making ethical decisions than those with 'not too strict/not strict at all' upbringing. The results of the combined measures indicated that professional accountants with 'strict' and 'very strict' upbringing are more predisposed in making ethical decisions than those with 'not too strict/not strict at all' upbringing (combined measures: very strict:  $\mu = 3.81$ ; strict:  $\mu = 3.82$ ; not too strict/not strict at all:  $\mu = 3.55$ ). This simply suggests that upbringing may have a significant influence on ethical intention. Table 4 also shows that in vignettes 1 and 4, professional accountants with master degree are more predisposed in making ethical decisions than those with first and Ph.D. degrees, while in vignettes 2 and 3, professional accountants with Ph.D. degree are more predisposed in making ethical decisions than those with first and master degrees. The results of the combined measures indicated that professional accountants with master and Ph.D. degrees are more predisposed in making ethical decisions than those with first degree (combined measures: first degree:  $\mu = 3.68$ ; master degree:  $\mu = 3.89$ ; Ph.D.:  $\mu = 3.83$ ). This simply suggests that level of education may have a significant positive influence on ethical intention.

**Test of Hypotheses:** To test the hypotheses of this paper, Kendall's tau-b correlation analysis was performed to establish relationship between upbringing, level of education and ethical decision-making stages. Kruskal-Wallis and Jonckheere-Terpstra tests were performed to test for differences in ethical decision-making stages based on upbringing and level of education and to show whether the trend in the data is significant. The results of these analyses are presented in the subsequent subsections.

**Kendall's tau-b Correlation Analysis:** The Kendall's tau-b correlation analysis was performed at a .05 level of significance for each vignette and for the combined measures to establish relationship between upbringing, level of education and EDM stages (ethical recognition, ethical judgment, and ethical intention). However, only the results for the combined measures were used to make final inferences on the relationship between the independent variables and EDM stages. The results of this analysis are presented in Table 5.

**Table 5. Kendall's tau-b Correlation Analysis**

EDM Stages & Variable	Vignette 1			Vignette 2			Vignette 3			Vignette 4			COMBINED		
	ER	EJ	EI	ER	EJ	EI	ER	EJ	EI	ER	EJ	EI	ER	EJ	EI
<b>Variables</b>															
Upbringi	.07	.061	.040	.136	.06	.08	.093	.06	.05	.07	.07	.09	.119	.09	.09
ng	0			**	8	5		6	7	6	8	2	*	1*	0*
Level of	.12	.139	.154	.111	-	.06	.149	.06	.04	.09	.09	.11	.139	.07	.11
educatio	1*	**	**	*	.01	5	**	9	3	0	4	0*	**	3	8*
n					6										

\*\*significant at .01; \*significant at .05; ER = ethical recognition; EJ = ethical judgment; EI = ethical intention;

**Source:** Research Survey, 2017

From Table 5, it is seen that upbringing correlated positively with ethical recognition in vignette 2 (ER:  $p < .01$ ,  $r = .136$ ). No significant relationship is seen between upbringing and EDM stages in vignettes 1, 3 and 4, and between upbringing and ethical judgment and ethical intention in vignette 2 ( $p > .05$ ). The results of the combined measures indicated that upbringing correlated positively with EDM stages (combined measures ER:  $p < .05$ ,  $r = .119$ ; EJ:  $p < .05$ ,  $r = .091$ ; EI:  $p < .05$ ,  $r = .090$ ). This simply suggests that upbringing has a significant relationship with ethical recognition, ethical judgment and ethical intention. Table 5 also shows



that level of education correlated positively with EDM stages in vignette 1 (ER:  $p < .05$ ,  $r = .121$ ; EJ:  $p < .01$ ,  $r = .139$ ; EI:  $p < .01$ ,  $r = .154$ ), with ethical recognition in vignette 2 (ER:  $p < .05$ ,  $r = .111$ ) and vignette 3 (ER:  $p < .01$ ,  $r = .149$ ), and with ethical intention in vignette 4 (EI:  $p < .05$ ,  $r = .110$ ). No significant relationship is seen between level of education and ethical judgment and ethical intention in vignettes 2 and 3, and between level of education and ethical recognition and ethical judgment in vignette 4 ( $p > .05$ ). The results of the combined measures indicated that level of education correlated positively with ethical recognition and ethical intention (combined measures: ER:  $p < .01$ ,  $r = .139$ ; EI:  $p < .05$ ,  $r = .118$ ). No significant relationship is seen between level of education and ethical judgment ( $p > .05$ ). This simply suggests that level of education has a positive relationship with ethical recognition and ethical intention, and not with ethical judgment.

**Kruskal-Wallis and Jonckheere -Terpstra Tests:** Kruskal-Wallis test was performed to assess differences in EDM stages (ethical recognition, ethical judgment and ethical intention) based on upbringing and level of education, while Jonckheere-Terpstra test was used as a support to indicate whether the trend in the data is significant or not. The tests were performed at a .05 level of significance for each vignette and for the combined measures. However, only the results for the combined measures were used to assess differences in EDM stages. The results of these tests on ethical recognition, ethical judgment and ethical intention are presented in the subsequent subsections.

**Test of difference in Ethical Recognition:** Ethical recognition (sensitivity) is the ability of an individual to identify whether a situation involves an ethical dilemma or not. The four vignettes used in assessing the respondents' ethical sensitivity in this paper all contain ethical dilemmas. Kruskal-Wallis and Jonckheere-Terpstra tests were performed to test for differences in ethical sensitivity based on upbringing and level of education. Table 6 presents the results of the tests for ethical recognition.

**Table 6. Kruskal-Wallis and Jonckheere-Terpstra tests: Ethical Recognition**

	VIGNETTES				Combined Measures
<u>Upbringing</u>	V1	V2	V3	V4	
Kruskal-Wallis test ( $\chi^2$ )	1.88	9.97**	7.12*	2.52	8.10*
Df	2	2	2	2	2
Observed J-T Statistics (J)	16435	17323	16705	16654	17557
Std. J-T Statistics (z)	1.36	2.64**	1.81	1.53	2.52*
Effect size ( $r$ ) = Std. J-T Statistics/ $\sqrt{N}$	.08	.15	.10	.08	.14
 <u>Level of education</u>					
Kruskal-Wallis test ( $\chi^2$ )	5.39	4.42	7.94*	3.17	8.44*
Df	2	2	2	2	2
Observed J-T Statistics (J)	15228	15037	15533	14954	15939
Std. J-T Statistics (z)	2.26*	2.07*	2.81**	1.75	2.85**
Effect size ( $r$ ) = Std. J-T Statistics/ $\sqrt{N}$	.12	.11	.15	.10	.16

\*  $p < .05$ ; \*\*  $p < .01$ ; N = 329; Source: SPSS output, 2017



From Table 6, it is seen that ethical sensitivity differs significantly based on upbringing in vignette 2 ( $\chi^2 = 9.97, p < .01$ ) and vignette 3 ( $\chi^2 = 7.12, p < .05$ ). The trend in the data for vignette 2 is significant ( $Z = 2.64, p < .01$ ) and the effect size is 15%. The trend in the data for vignette 3 is not significant ( $p > .05$ ). Still from the Table, no significant difference is seen in ethical sensitivity based on upbringing in vignettes 1 and 4 ( $p > .05$ ). The results of the combined measures indicated that ethical sensitivity differs significantly based on upbringing ( $\chi^2 = 8.10, p < .05$ ) and the trend is significant ( $Z = 2.52, p < .05$ ) with an effect size of 14%. This simply suggests that stricter upbringing may lead to enhanced ethical sensitivity. Table 6 also shows a significant difference in ethical sensitivity based on level of education in vignette 3 ( $\chi^2 = 7.94, p < .05$ ). The trend in the data for vignette 3 is significant ( $Z = 2.81, p < .01$ ) and the effect size is 15%. No significant difference is seen in ethical sensitivity in vignettes 1, 2 and 4 based on level of education ( $p > .05$ ). The results of the combined measures indicated that ethical sensitivity differs significantly based on level of education ( $\chi^2 = 8.44, p < .05$ ) and the trend is significant ( $Z = 2.85, p < .01$ ) with an effect size of 16%. This simply suggests that advances in educational level may lead to enhanced ethical sensitivity.

**Test of differences in Ethical Judgment:** Ethical judgment is the ability of an individual to determine the ethically appropriate course of action among potential alternatives. The four vignettes used in assessing the respondents' ethical judgments in this paper all have alternative courses of action. Kruskal-Wallis and Jonckheere-Terpstra tests were performed to test for differences in ethical judgment based on upbringing and level of education. Table 7 presents the results of the tests for ethical judgment.

**Table 7. Kruskal-Wallis and Jonckheere-Terpstra tests: Ethical Judgment**

VIGNETTES					
Upbringing	V1	V2	V3	V4	Combined Measures
Kruskal-Wallis test ( $\chi^2$ )	1.78	3.25	3.85	2.65	5.57
Df	2	2	2	2	2
Observed J-T Statistics (J)	16274	16431	16548	16690	17148
Std. J-T Statistics (z)	1.19	1.39	1.35	1.61	1.99*
Effect size (r) = Std. J-T Statistics/ $\sqrt{N}$	.07	.08	.07	.09	.11
<b>Level of education</b>					
Kruskal-Wallis test ( $\chi^2$ )	7.03*	.31	2.46	3.85	2.43
Df	2	2	2	2	2
Observed J-T Statistics (J)	15496	13247	14692	15029	14890
Std. J-T Statistics (z)	2.61**	-.32	1.36	1.86	1.55
Effect size (r) = Std. J-T Statistics/ $\sqrt{N}$	.14	-.02	.07	.10	.09

\*  $p < .05$ ; \*\*  $p < .01$ ; N = 329; Source: SPSS output, 2017

From Table 7, no significant difference is seen in ethical judgment based on upbringing in the four vignettes ( $p > .05$ ). The results for the combined measures show no significant difference in ethical judgment based on upbringing ( $p > .05$ ), which suggests that upbringing may not significantly influence ethical judgment.

Still from Table 7, it is seen that ethical judgment differs significantly based on level of education in vignette 1 ( $\chi^2 = 7.03, p < .05$ ) and the trend is significant ( $Z = 2.61, p < .01$ ) and has an effect size of 14%. However, from the Table, no significant difference is seen in ethical judgment in vignettes 2, 3 and 4 based on level of education ( $p > .05$ ). The results of the combined measures show no significant difference in ethical judgment based on level of education ( $p > .05$ ), which suggests that advances in educational level may not lead to enhanced ethical judgment.

**Test of differences in Ethical Intention:** Ethical intention is the subjective probability that a given behavioural alternative will be performed. The four vignettes used in assessing the respondents' ethical intentions all have seeming reasons to justify unethical decisions. Kruskal-Wallis and Jonckheere-Terpstra tests were performed to test for differences in ethical intention based on upbringing and level of education. Table 8 presents the results of the tests for ethical intention.



**Table 8. Kruskal-Wallis and Jonckheere-Terpstra tests: Ethical Intention**

VIGNETTES					
	V1	V2	V3	V4	Combined Measures
<b>Upbringing</b>					
Kruskal-Wallis test ( $\chi^2$ )	1.76	3.33	3.15	5.73	6.22*
Df	2	2	2	2	2
Observed J-T Statistics (J)	15959	16818	16421	16888	17156
Std. J-T Statistics (z)	.820	1.76	1.18	1.91	1.99*
Effect size (r) = Std. J-T Statistics/ $\sqrt{N}$	.05	.10	.07	.11	.11
<b>Level of education</b>					
Kruskal-Wallis test ( $\chi^2$ )	10.97**	1.71	1.98	5.48	6.52*
Df	2	2	2	2	2
Observed J-T Statistics (J)	15935	14540	14294	15317	15734
Std. J-T Statistics (z)	3.03**	1.30	.87	2.20*	2.53*
Effect size (r) = Std. J-T Statistics/ $\sqrt{N}$	.17	.07	.05	.12	.14

\* $p < .05$ ; \*\* $p < .01$ ; N = 329; Source: SPSS output, 2017

From Table 8, based on upbringing, no significant difference is seen in ethical intention in the four vignettes ( $p > .05$ ). However, the results of the combined measures indicated that ethical intention differs significantly based on upbringing ( $\chi^2 = 6.22$ ,  $p < .05$ ) and the trend is significant ( $Z = 1.99$ ,  $p < .05$ ) and has an effect size of 11%. Table 8 also shows a significant difference in ethical intention based on level of education in vignette 1 ( $\chi^2 = 10.97$ ,  $p < .01$ ) and the trend is significant ( $Z = 3.03$ ,  $p < .01$ ) and has an effect size of 17%. Still from the Table, no significant difference is seen in ethical intention in vignettes 2, 3 and 4 based on level of education ( $p > .05$ ). However, the results of the combined measures indicated that ethical intention differs significantly based on level of education ( $\chi^2 = 6.52$ ,  $p < .05$ ) and the trend is significant ( $Z = 2.53$ ,  $p < .05$ ) and has an effect size of 14%. In summary, the results of the Kendall's tau-b correlation analysis and Kruskal-Wallis and Jonckheere-Terpstra tests for the three stages of ethical decision-making show strong statistical supports for hypotheses 1a, 1c, 2a, and 2c, and weak support for hypothesis 1b, and no statistical support for hypothesis 2b. The summary of the test of hypotheses is presented in Table 9.

**Table 9. Summary of Hypotheses Testing**

Hypotheses	Kendall's tau-b correlation	Kruskal-Wallis	Remark
<b>H1a:</b> Strictness of upbringing is significantly related to ethical recognition	$P < .05$	$P < .05$	Strongly supported
<b>H1b:</b> Strictness of upbringing is significantly related to ethical judgment	$P < .05$	$P > .05$	Partially supported
<b>H1c:</b> Strictness of upbringing is significantly related to ethical intention	$P < .05$	$P < .05$	Strongly supported
<b>H2a:</b> Level of education is positively related to ethical recognition	$P < .01$	$P < .05$	Strongly supported
<b>H2b:</b> Level of education is positively related to ethical judgment	$P > .05$	$P > .05$	Not supported
<b>H2c:</b> Level of education is positively related to ethical intention	$P < .05$	$P < .05$	Strongly supported

**Discussions:** This paper, in view of Kohlberg theory of cognitive reasoning and moral development (CMD), examined whether upbringing and formal education directly influence specific processes, named ethical recognition, ethical judgment and ethical intention, involved in ethical decision-making of professional accountants in Nigeria. As expected, the evidence provided indicated that both upbringing and formal education significantly determined the ethical decision-making of the professional accountants sampled in the paper, which is consistent with prior studies on upbringing (Guyot et al., 2011; Choudhury et al., 2012)



and education (Pierce & Sweeney, 2010; Musbah et al., 2016). In particular, upbringing correlated positively with ethical recognition, ethical judgment and ethical intention. The paper also identified a significant difference in ethical recognition and ethical intention, and none in ethical judgment based on upbringing. Professional accountants with *very strict* upbringing displayed more proclivities in making ethical decisions in the four vignettes than those with *not too strict* upbringing. Likewise, level of education correlated positively with ethical recognition and ethical intention, and not with ethical judgment. In addition, a significant difference was identified in ethical recognition and ethical intention, while none in ethical judgment based on level of education. Professional accountants with Ph.D. and master degrees displayed more proclivities in making ethical decisions in the four vignettes than those with only first degree.

The findings agree with Dellaportas (2006), who noted that ethics are values inculcated and developed over a period, which regulates individuals' conducts, than a static legislative rules commanding strict adherence, supporting the idea that moral development can be enhanced through the process of training and education. These findings support Kohlberg's cognitive reasoning and moral development (CMD) theory, which noted that an individual's ability to make ethical judgment develops in stages and it is affected by certain factors and conditions. Kohlberg suggested that an individual's moral development may be enhanced by training and educational advancement, which this paper confirmed with empirical evidence showing that upbringing and level of education significantly influenced the ethical disposition of professional accountants in Nigeria. The paper also provided evidence to support Aristotle's *Nicomacheanethics*, suggesting that professional accountants acquire, to some extent, ethical character during upbringing.

It is therefore projected that professional accountants, at the early stage of growth and development, become aware of moral issues based on the punishment (or rewards) associated with every unethical (or ethical) act, which depends largely on the kind of upbringing and educational exposure. Thus, upbringing and education may play considerable roles in moulding and shaping the moral disposition and decision-making processes of future professional accountants. That is, consciously or unconsciously, professional accountants may respond to ethical dilemmas at the workplace in line with certain moral values learnt from childhood. Overall, this paper suggests that future theorising and empirical study in ethical decision-making should consider the role of upbringing and formal education as they exerted strong influences on ethical recognition and ethical intention of professional accountants in Nigeria.

## 5. Conclusion

Accounting ethics research from developing countries appears to have limited representation in the journal literature. Also, among the individual variables mostly researched, upbringing has received limited attention. This paper examined the influence of upbringing and formal education on three of the four stages of Rest's (1979) ethical decision-making model using data from Nigeria, a developing country. With the evidence provided, this paper concluded that upbringing and formal education are significant determinants of ethical decision-making of professional accountants and that stricter upbringing and higher level of education may aid ethical sensitivity and enhance ethical decision making. Therefore, the kind of upbringing and education that ensure that individuals *think straight and talk straight* may enhance their moral disposition and ethical decision-making process when faced with ethical dilemmas at the workplace. This paper has answered the call for new variables in business and accounting ethics research (see Rashid & Ibrahim 2008; Craft, 2013; Lehnert et al., 2015) by providing evidence to show that upbringing, an under-researched variable in accounting ethics, is a significant determinant of the ethical decision-making process of professional accountants. The paper, being supported by Kohlberg's cognitive reasoning and moral development (CMD) theory and Rest's ethical decision-making (EDM) theoretical model, has demonstrated that upbringing and level of education influence ethical decision-making. The findings suggest that, through educational intervention, the ethical decision making process of future professional accountants may be enhanced as level of education was found to exert strong positive influence on ethical recognition and ethical intention.

Like prior business and accounting ethics research, this paper is limited in different ways. Single item measures were adapted from prior studies to measure each stage of Rest's (1979) ethical decision-making model, which might not be sufficient to measure each stage in a fully reliable way. Although, all the measures used in this paper have been validated in previous research, the results should be interpreted with caution.



Future research should consider multidimensional measurement scales in measuring the stages of the ethical decision-making process. Also, accounting ethics researchers may choose to conduct comparative study in ethical decision-making between developing countries, and between developed and developing countries. In the course of this paper, a new vignette was developed and pretested (see Appendix A, vignette 3). Future research may further test this vignette in measuring Rest's ethical decision-making stages.

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**APPENDIX A**

**VIGNETTE 1**

Jackson Williams is a young management accountant at a large, public company. After some experience in accounting at headquarters, he has been transferred to one of the company's recently acquired divisions, run by its previous President, Mr. George Bright. Mr. George has been retained as Vice President of this new division, and Jackson is his accountant. With a marketing background and a practice of calling his own shots, George seems to play by a different set of rules than those to which Jackson is accustomed. So far it is working, as earnings are up and sales projections are high. The main area of concern to Jackson is George's expense reports. George's boss, the division President, approves the expense reports without review, and expects Jackson to check the details and work out any discrepancies with George. After a series of large and questionable expense reports, Jackson challenges George directly about charges to the company for delivering some personal furniture to George's home. Although the company policy prohibits such charges, George's boss again signed off on the expense without a thorough check. Jackson feels uncomfortable with this and tells George that he is considering taking the matter to the audit department at the headquarters for review. George reacts sharply, reminding Jackson that "the department will back me anyway" and that Jackson's position in the company would be in jeopardy.

**DECISION: Jackson decides not to report the expense charge to the audit department of the company.**

**VIGNETTE 2**

Mitchel White, the accountant of a multinational company, was told by the Chief Executive Officer (CEO) to restate the company's earnings to impress potential investors. Unfortunately, Mitchel believes this is unethical and besides, she is duty bound to protect the public interest as a professional. Mr. Adams, her assistant, suggests that Mitchel review bad debt expense for possible reduction and holding sales open longer at the end of the month. He also brushes off the management letter request from the external auditors to write down the spare parts inventory to reflect its "true value." At home at the weekend, Mitchel discusses the situation with her husband, Mr White, a senior manager of another company in town. "They're asking me to manipulate the books," she says. "On the one hand," she complains, "I am supposed to be the conscience of the company and on the other, I 'm supposed to be absolutely loyal." White tells her that companies do this all the time, and when business picks up again she will be covered. He reminds her how important her salary is to help maintain their comfortable lifestyle, and that she shouldn't do anything that might cause her to lose her job.

**DECISION: Mitchel decides to go along with the suggestions proposed by her boss.**

**VIGNETTE 3**

Jay Geoffrey, a member of the internal control unit of a multinational company with subsidiaries all over Africa, was asked to check the records and get them ready for the external auditors. In doing so, he discovered that the books have been doctored by the Chief Accountant and Head of internal control to evade taxes. After ruminating over his discovery, he summoned the courage to approach the Managing Director (MD) to inform him about his discovery and decision to blow the whistle in line with the company's policy and in line with the Whistle Blowers policy of the country. However, the MD, who is also a part of the manipulation unknown to Jay, offered him some money not to blow the whistle. But he turned down the offer and insisted that he was going to blow the whistle. Then the conspirators threatened his life.

**DECISION: Jay decides not to blow the whistle**

**VIGNETTE 4**

Alfred Brown is the assistant controller at BADEX Electronics, a medium-sized manufacturer of electrical equipment. Alfred is in his late fifties and plans to retire soon. His daughter has a very rare kind of illness which needs lots of money to help her get an operation abroad. Therefore, financial concerns are weighing heavily on his mind. Alfred's boss is out of the office recuperating from health problems, and in his absence, Alfred is making all decisions for the department. Alfred receives a phone call from an old friend requesting a sizable amount of equipment on credit for his new business. Alfred is sympathetic but cognisant of the risk of extending credit to a new company, especially under strict credit policy for such transactions. When Alfred mentions this conversation to Mr. Brook, the general manager, he is immediately interested. Mr. Brook notes that the company needs an additional ₦25,000,000 in sales to meet the quarterly budget and, thus, ensures bonuses for Alfred if the sales is made.

**DECISION: Alfred decides to make the sales to his friend's new business.**