

Agency Culture, Training and Technological Application as Predictors of Commercial Crime Investigators Effectiveness.

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Abstract: The unique role played by commercial crime investigators in the civilized society cannot be overemphasized. They are very critical societal agents for the attainment, preservation and promotion of security in the society. This has made many psychologists, criminologists and sociologists to stress the importance of understanding the institution of investigating and policing. This study therefore examined the influence of agency culture, training and technological application on commercial crime investigators' effectiveness across four agencies (Police, EFCC, Customs, and NDLEA) in Nigeria. The study also looked at the moderating influence of gender, academic qualification and cadre on the combined and relative contributions of agency culture, training and technology application on professional effectiveness of commercial crime investigators.

This study used a descriptive survey design of ex-post-facto type. One thousand and two hundred participants, selected through a combination of purposive and stratified random sampling techniques were drawn from commercial crime investigating units of the Police, EFCC, Customs and NDLEA in Lagos State. Data were collected using two adopted and three adapted instruments. The reliability coefficients yielded by the instruments were: Agency Culture Inventory, 0.88; Training Effectiveness Scale, 0.73; Technology Application Inventory, 0.91; and Commercial Crime Investigators Effectiveness Scale, 0.81. Two null hypotheses were tested at 0.05 level of significance, while data were analyzed using of means, standard deviation and Multiple Regression Analysis.

Results indicated that all the predictor variables (culture, training, and technological application) jointly predicted commercial crime investigators' effectiveness ($R = .432$; $R^2 = .187$; $\text{Adj. } R^2 = .183$; $F_{(4, 1174)} = 19.344$; $p < .05$); while the most potent predictor of commercial crimes investigators' effectiveness among the predictor variables of the study was training ($\beta = .372$; $t = 8.419$; $p < .05$), followed by agency culture ($\beta = .300$; $t = 6.335$; $p < .05$), and lastly by technological application ($\beta = .261$; $t = 4.456$; $p < .05$).

The study concluded that training, agency culture, and technological application jointly and relatively predicted commercial crime investigators' effectiveness. It was recommended, amongst others, that the agencies for fighting crimes in Nigeria should be strengthened, through constant training, promotion of the right values and state-of-the-art technology. Relative autonomy of the agencies would also empower them to deal with commercial crimes more effectively.

Key words: Agency culture, training, technology application, commercial crime investigators, effectiveness.

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I. INTRODUCTION

Criminal investigation all over the world has been a topic of study for academics and practitioners alike, and is defined as 'the process of legally gathering evidence of a crime that has been or is being committed (Brown, 2001). It seeks to identify the truths associated with how and why a crime occurred, and works toward building a case that may lead to the successful prosecution of the offender(s) (Hinduja, 2009). Research studies mentioned above and more have sought to determine the best way in which the investigative process can be conducted and managed. The overarching goal of these studies has been to enable police/ law enforcement departments to reflect upon their own practices against the backdrop of the findings, and then to implement salient positive changes which would improve the day-to-day operations of their organization.

However, the nations that secure property rights, regulate entry, and curb corruption are thought to create the right incentives for their economy to prosper (Hinduja, 2009). But while the virtues of good nation for economic development and growth are widely acknowledged, what determines the quality of nation is much less understood in terms of security of life and property. Recent empirical evidence reiterates the fact that law enforcement agents play an important role in enforcing the law and thus affecting economic performance (Besley, Persson, & Sturm, 2010; Jones & Olken, 2005).

Security of life and property is a fundamental human right guaranteed under the constitution. Efforts have been made by successive administrations, especially since 1999 to provide this. However, growing poverty, wide income disparities, high level of unemployment, social dislocation caused by massive rural – urban migration and the breakdown of societal values leading to business frauds (419, drug abuse, money laundry, among others), and community unrest account for the growing concern about the level of uncertainty and security in parts of the country (Besley, Persson, & Sturm, 2010; Hinduja, 2009). The institutions that were established to guarantee security to the ordinary citizen are perceived to be incapacitated by limited manpower and skills relative to society's demand, poor funding, poor equipment and general lack of proper orientation and commitment by some operatives (Alemika, 2003; Fashanu & Ayodele, 2007; Hinduja, 2009). The need for factor that predicts employees' effectiveness has become more critical to agency success especially in academia. One of the factors that could lead to overall organizational performance and productivity in the dynamic and competition technology world today is employees' efficiency on their job. Employees' efficiency on their job has emerged as a promising area of research within the study of industrial and labour relations in the recent time (Gbadamosi & Nwosu, 2010; Meyer & Allen, 1997; Ogunyemi, 2007; Salami, 2008).

The Problem

Over the years, commercial crime investigators have experienced endemic problems with recruiting, training and tools' efficiency and discipline, and they lacked expertise in specialized fields. Corruption and dishonesty were believed to be widespread, engendering a low level of public confidence, failure to combat, investigate and report crimes, and tendencies to resort to self-help. Commercial crimes investigators were more adept at paramilitary operations and the exercise of force than at community service functions or crime prevention, detection and forensic investigation.

The perennial increase in corruption, 419, cybercrime, kidnapping, smuggling among others in the last ten years has generated serious concern among educators, researchers and general public. Studies in the past have devoted much attention to gender and personal factors in the prediction of crime investigators effectiveness with little or no attention paid to agency culture, training and technological application as factors. In order to fill this yearning gap, this study is set to determine the extent to which agency culture, training technological application factors will individually and jointly predict commercial crime investigators effectiveness. The moderating influence of gender, cadre and qualification on the predictive powers of the independent variables on the dependent variable will also be investigated.

Hypotheses

The following hypotheses were formulated for testing at 0.05 level of significance.

1. There is no significant joint contribution of agency culture, training, and technological application on commercial crimes investigators' effectiveness.
2. There is no significant relative contribution of agency culture, training and technological application on commercial crimes investigators' effectiveness.

II. METHODOLOGY

Research Design: This study adopted a descriptive survey design of ex-post-facto type. This survey design was preferred since the researcher cannot control the conditions experienced by the subjects.

Population: This study comprised of commercial crime investigative units of the Police (SFU) with a population of 901, EFCC with 750, Customs with 697 and NDLEA with 515 within the Federal operational command in Lagos State, Nigeria.

Sample and Sampling Technique: One thousand and two hundred participants were selected through purposive and stratified random sampling techniques. First, the Police, EFCC, Customs and NDLEA in Federal operational command in Lagos State, Nigeria was selected purposively because the four agencies are involved in the investigation of commercial crimes in Nigeria. A sample size of 300 respondents was selected respectively from each of the commercial crime investigative outfits - Police, EFCC, Customs and NDLEA, making a total of 1200 in all. **Instruments:**

Agency Culture Inventory (ACI): Agency culture was measured by adopting Agency Culture Inventory by Hee-jae (2000). This instrument consists of 60 items and was designed to capture four dimensions of agency culture (organizational structure), namely involvement, consistency, adaptability and mission. All sub-scales employ a four point scale, ranging from 1 (strongly disagree) to 4 (strongly agree). The internal consistency measured by Cronbach alphas for overall agency culture inventory and for involvement, consistency, adaptability and mission sub-scales are 0.88, 0.90, 0.88, 0.81, and 0.92 respectively (Hee-jae, 2000). In Nigeria, the instrument has also been used by Oledikwa and Nbang (2006).

Training Effectiveness Scales (TES): Commercial crime investigators' training was measured by the South Carolina Law Enforcement Training Survey developed by Rojek, Kaminski, Smith, and Scheer (2007). This

instrument questionnaire has been used in more than 65 agencies in the United States of America. For the purpose of this study, the internal consistency of this instrument was established using Cronbach alpha which yielded a coefficient of 0.73

Technology Application Inventory (TAI): This scale assesses how competent Commercial Crime Investigators are in ICT tools and program operations; while section C was adapted from the work Abida and Irfan (2010), which was an earlier adaptation from seven factors of computer application originally developed by seven authors namely Venkatesh and Davis (2000) for intention to use, Thompson, Higgins and Howell (1991) for job fit, Venkatesh and Davis (2000) for perceived ease of use, Bhattacharjee (2000) for attitude, Taylor and Todd (1995) for facilitating conditions, Teo (2008) for affect towards usage, and Venkatesh and Davis (2000) for voluntariness.

Commercial Crime Investigators Effectiveness Survey (CCIES): Crime investigators effectiveness scale developed by Osterburg (1962) was adopted in this study. It has 24 items. The scale was developed to ascertain certain law enforcement current practices in line with their operation, selection, training, evaluation, investigation, job description, work requirement/methodology, and desirable experiences. A four-point response was employed, ranging from “very weak” to 4 “very good”. In this study the internal consistency index for the scale using Cronbach alpha was 0.87.

Procedure: The researcher and four research assistants were involved in the administration of the instruments to each of the sample respondents chosen. The research assistants were postgraduate students of Babcock University trained for the purpose of this study. They were given an orientation on the research and how to carry out the administration of the questionnaires.

Method of Data Analysis: The data collected in this study were analyzed using both descriptive and inferential statistics. The descriptive tools of mean and standard deviation scores were used to describe the commercial crime investigators effectiveness. The hypotheses generated to guide the study were tested by the Multiple Regression Analysis (to explain the contribution, joint and relative of the independent variables) to the dependent variable and its accompanying analysis of variance (ANOVA) test at the 0.5 level of significance.

III. RESULTS AND DISCUSSION

Table 1: *Model Summary of the Regression Analysis for the Combined Contributions of culture, training, and technological application to the prediction of commercial crimes investigators' effectiveness*

Model	R	R ²	Adj. R ²	SE	Change Statistics				
					R ² Change	F Change	df 1	df 2	Sig. F Change
Predictor Variables	.432	.187	.183	13.061	.183	19.344	4	1174	.021

- a. **Predictions: (Constant), culture, training, technological application**
- b. **Dependent Variable: Commercial crime investigators' effectiveness**

The results in Table 1 indicated that with all the predictor variables (culture, training, and technological application) in the regression model jointly predicted commercial crimes investigators' effectiveness ($R = .432$; $R^2 = .187$; $Adj. R^2 = .183$; $F_{(4, 1174)} = 19.344$; $p < .05$). This showed that all the predictor variables accounted for 18.3% of the variance in the commercial crimes investigators effectiveness. The null hypothesis which stated that there is no significant joint contribution of culture, training, and technological application on commercial crimes investigators' effectiveness was rejected by this finding.

The implication of this result is that for commercial crime investigators to be effective, agency culture, training and technological application cannot be overruled. One plausible reason for this finding may be adduced to the fact that agency culture which arises from a set of tasks that are repeated and routinized in various degrees, and producing a set of attitudes and an explanatory structure of belief (ideology) to a great extent will influence the commercial crime investigators' effectiveness. This is so because agency culture provides investigators with guidance and orientation, value, identification and furthermore rules, order and legitimization, which is very essential for survival, growth and adaption to their environments as well as internal integration which permits daily functioning and the ability to adapt and learn. This is supported by the findings of Baetge, Schewe, Schulz and Solmecke (2007), House, Hanges, Javidan, Dorfman, and Gupta, (2004), and Schein (2010) that agency (organizational) culture is a link to the performance and success of an organization and embedded in the organization's ability to adapt to its environment.

Since, commercial crime investigators are confronted with investigating, detecting and making judgments of truth and deception on a daily basis and they need to decide on the veracity of claims about commercial crimes among hundreds of other situations. Training as a predictor of commercial crime investigators' effectiveness was found potent. It could then be said from the outcome of this finding that systematic development of knowledge, skills and attitudes required by investigators to perform adequately to

meet their organizational needs cannot be over-stressed. This corroborates the report of Olaniyan and Ojo (2008) that training and development are required of employees to enable them work towards taking the organization to its expected destination. On the third predictor variable, it could be deduced that since crime is advancing on daily basis, the need to tackle it with more advanced technology is necessary. The result is in line with the previous findings of researchers and scholars like Hindujah, (2007) who found a significant relationship between commercial crimes investigators effectiveness and technological application.

The overall advantage of this finding is that it provides the much needed guide in improving commercial crimes investigators effectiveness. Commercial crimes investigators are in the intelligence sector of law enforcement agencies and their crime fighting, detection and prevention capabilities depend on individual officers' timely access to relevant and accurate information. While enforcing the law, they have to decide whether or not a crime has been committed, to investigate the case to gain information and evidence to identify the suspects, to recover the stolen property (e.g the money), to arrest the suspects, and to bring them to justice by presenting the evidence to the prosecutor. Thus, this finding revealed that agency culture, training and application of technology has substantial impact on law enforcement practices. In addition, any positive relationship that exists between agency culture, training and application of technology by the agency improves the quality of investigation and performance of law enforcement agencies.

Table 2: *Beta Coefficients and t Ratio for Relative Contributions of culture to the prediction of commercial crimes investigators' effectiveness*

	Unstandardized Coefficients		Standardized Coefficients	t-ratio	Sig.
	B	Std. Error	Beta (β)		
(Constant)	63.807	7.115		16.444*	.000
Culture	.201	.135	.300	6.335*	.007
Training	.298	.038	.372	8.419*	.000
Technological Application	.167	.047	.261	4.456*	.000

***Significant at 0.05 level**

a. Dependent Variable: Commercial Crime Investigators' effectiveness

The results in Table 2 revealed the strength of causation of the predictor variable on the criterion variable. The most potent predictor of commercial crimes investigators' effectiveness among the predictor variables of the study is training ($\beta = .372$; $t = 8.419$; $p < .05$). Agencies' culture is the next potent factor ($\beta = .300$; $t = 6.335$; $p < .05$), and lastly by technological application ($\beta = .261$; $t = 4.456$; $p < .05$) in the prediction of commercial crimes investigators' effectiveness. The hypothesis of no relative contribution of culture, training, and technological application on commercial crimes investigators' effectiveness was rejected by this finding. This implies that there is a significant relative contribution of culture, training, and technological application on commercial crime investigators effectiveness, while training was observed as the most potent predictor among the three.

It can be deduced therefore that training will not only improve the technical and non- technical skills of the investigators, but it can be used to get them committed to their job as well as to their agencies. The influence of training in this situation is positive and beneficial to the commercial crime investigators effectiveness. The reason that can be adduced is that training enhances skills, knowledge, attributes and competencies and ultimately worker performance and productivity in organizations as the quality of the human resource of an organization is essential to its success. This outcome lend credence from Brum (2010) that access to training play a significant role in the level of commitment that is established within an organization. This means that investigators are likely to place greater value on training programmes that are more frequent and highly respected by colleagues, supervisors, and boss. Also, Bartlett (2001) argues that organizations that are able to create an environment where training is supported and valued by employees will be able to achieve greater commitment outcomes and improved their effectiveness.

The result on the agency culture is supported by the findings of Kotter and Heskett (2011) who found that culture has a strong and increasing impact on the performance of commercial crime investigators. It is obvious that agency culture has strong influence on commercial crime investigators' effectiveness. Since, agency culture has effect on the productivity level of the agencies in the sense that it influences crime investigators' behaviour to work and their input to the agencies that determines the agencies' effectiveness level. This is also supported by the findings of Buchanan and Huczynski, (2004), Ojo, (2009), and Shani and Lau (2005) that culture affects such outcomes as productivity, performance, commitment, self-confidence, and ethical

behaviour. Therefore, culture is one of the core determinants of every organization's success as it influences employee work behaviour.

The outcome of the findings of the influence of the technological application on commercial crime investigators effectiveness was confirmed by this study. Not only can information technologies develop and facilitate the intra- and interrelationships in law enforcement agencies, but they also have the potential to improve the efficiency and effectiveness of the police officers and agencies without adding additional costs (Nunn & Quinet, 2002). Also, the claim of Chan (2001) that information technology has contributed to policing by enabling the sharing of more information among officers, creating officer accountability, improving communication, providing cooperation, and creating positive work environments lend good support to this finding.

The advantage of the finding of hypothesis two is that agency culture, training and technological application may serve as essential impulses for positive changes in law enforcement; enhancing effectiveness and efficiency, responding to the demands of other agencies, and providing for the necessities of new methods in commercial crime investigators management and accountability. In fact, positive and relative contribution of agency culture, training and technological application will help law enforcement agencies control crime and improve their professional status and organizational authority.

IV. CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study, the following conclusions were made:

The study found that training is the most potent factor in determining commercial crimes investigators' effectiveness. The finding of this research has also proved the relevance of training in enhancing the effectiveness of both individual and organization.

Agencies culture is the second potent factor of the study shared values and norms, which influence commercial crime investigating agents' behavior and interactions between supervisors and subordinates, and internal and external participants. Therefore, to ensure the successful development of a learning organization, culture must be considered. Culture is the complex, interrelated whole of standardized, institutionalized, habitual behavior that characterizes the agency and that agency only.

This study has shown that technological application will significantly influence the commercial crime investigators' effectiveness in Nigeria. The study provides a basis for the understanding of the influence of technological application on the commercial crimes investigating agencies' effectiveness.

Based on the findings of this study, the following recommendations are made:

- i. There is need for total over hauling of the Police force and other investigative agencies. Moreso, recruitment of intakes into such agencies should be done on merit to reflect the integrity of the nation and objectives under which the outfits were created to necessitate boast on the culture of the agency.
- ii. Institutions that train commercial crime investigators in the country should be well equipped with modern equipment in order to give them required training for full participation in the world of crimes.
- iii. Trainers in the department of crime investigation should be sent on in service training and re-training to enable them update their knowledge in technological application to enable train their investigators effectively.
- iv. Fostering of better synergy between these agencies that will reduce professional suspicion amongst agencies as well as it affects the positional culture practices of these agencies where common trainings are shared.
- v. With the findings that emanated from the study, it is suggested that the study should be replicated in other states of the federation. If properly done, it would generally help the commercial crime investigative outfits in bringing about adequacy in the sustenance of an enabling environment for economic development and performance.

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