European Journal of Economics, Law and Politics, ELP

June 2019

European Scientific Institute, ESI

The content is peer-reviewed

June 2019 Edition Vol. 6, No. 2

ISSN 2518-3761

About The Journal

The European Journal of Economics, Law and Politics (ELP) is a peer-reviewed journal which accepts high quality research articles. It is a quarterly published international journal and is available to all researchers who are interested in publishing their scientific achievements. We welcome submissions focusing on theories, methods, and applications in economics, legal, and political sciences.

In the past few years, academicians from over 20 countries from Europe and around the globe have published their papers in the European Journal of Economics, Law and Politics.

Authors can publish their articles after a review by our editorial board. Our mission is to provide greater and faster flow of the newest scientific thought. ELP's role is to serve as a kind of bridge between researchers around the world. ELP is open to all researchers, regardless of their geographical origin, race, nationality, religion or gender, as long as they have an adequate scientific paper in the field of economics, legal, and political sciences.

ELP fully supports the open access and open science concept. The full content of the papers is available on ELP website and is free for usage.

Jose Noronha Rodrigues

Managing Editor

Table Of Contents:

About the Need to Adjust the Regulations Regarding the Form of Will to the Modern Requirements

Mariusz Załucki
Institute of Private Law, Krakow University, Poland

Doi: 10.19044/elp.v6no2a1 URL:http://dx.doi.org/10.19044/elp.v6no2a1

Abstract

A will is a traditional instrument for disposing of property in the event of death. Model solutions of this kind date back to Roman times, which survived thousands of years and are still, in a slightly modified form, in the legal regulations of individual states. However, recent years have been a period of intensive development of new technologies. Against this background, the question arises as to whether or not instruments linked to new technologies can be used by testators to dispose of their property in the event of death, and whether or not there is a need to do so, and whether inheritance law based on Roman tradition fulfils its role. This has become the subject of research in which the author tries to demonstrate the need to adapt the testamentary formalities to the requirements of modern times. The aim of the study is to present the challenges posed by technological possibilities in the area of wills and to consider whether the legislators should take into account technological changes and related social needs in the inheritance law. In this connection, the author describes the issues that took place in selected countries which concerned the preparation of wills using technological benefits and, contrary to the current requirements as to the form of preparation of wills, presents how individual legislators coped with the emerging problems in this area. In his dogmatic and comparative legal analysis, he tries to answer the question of the need to adapt the formal requirements accompanying the drafting of wills to the technological requirements.

Keywords: Wills, formalities, succession, inheritance.

1. Introduction

A will as a disposition of property upon death is now the main alternative to statutory succession[1]. Although the rules applicable to drawing

1 The article is part of a project funded by the National Science Centre, Decision No DEC-2013/11/B/HS5/03792. More on the results of the research is published in a monograph: Videotestament. Prawo spadkowe wobec nowych technologii, Warszawa 2018.

up a will are frequently questioned[2], the reality shows that dispositions by way of a will are the most popular tool in the particular legal systems used to regulate the legal relationships after the death of the testator[3]. This refers not only to the future of the property of the testator *mortis causa* but also broader understood social relationships among the persons closest to the testator. The succession law instruments, which have been created with years, may be assessed in a comprehensive context, not only as ones applicable to the future of the succession property. Such structure is important because according to some social assessments the possibility of drawing up a will has a much wider reach than it could be thought *prima facie*. This refers also to such actual situations in which the intent of the testator is to dispose of their property upon death, which – due to the reasons mostly attributed to the testator, just to mention the lack of adequate knowledge – simply becomes ineffective. In the times of great engagement of the potential testators in the world of new technologies, which is undoubtedly the case currently, one of the issues which – as it may be conceived – requires a non-standard perception is the statutory framework of *mortis causa* legal actions. Can the extraordinary nature of the current times may be closed within the frames of seemingly ordinary legal structures, which have basically been known already at the time of the Roman rule[4]? Whether in the succession law there is no alternative for the regulations applicable to the form of a will and testators must avail of the traditional instruments? This article is an attempt of proving that it is not the case and that legislative changes are needed in order to follow the technological progress[5].

2. Last will expression

Throughout the years the practice of the succession law in the particular legal systems has been differently reacting to the problems related to the form of a will. The testators have been expressing their last will in various manners. Despite the fact that the regulations applicable to the form of a will in the specific law systems usually provided for the duty to draw up a will in a strictly formal way, particularly in writing, or before a person

---

2 See, for example, *M. Załucki*, *Forma testamentu w perspektywie rekodyfikacji polskiego prawa spadkowego. Czas na rewolucję?*, Państwo i Prawo 2017, issue 3, p. 36 et seq.

3 *R. Pound*, *The Role of the Will in Law*, Harvard Law Review 1954, issue 1, p. 1 et seq.; *H.E. Nass*, We Can't Stop Loving You, Trusts & Estates 2005, issue 8, s. 64; *R. Zimmermann*, *Testamentsformen: »Willkür« oder Ausdruck einer Rechtskultur?*, Rabels Zeitschrift für ausländisches und internationales Privatrecht 2012, p. 473 et seq.

4 *R. Świrgoń-Skok*, *Swoboda dysponowania majątkiem na wypadek śmierci w ujęciu historycznoprawnym*, [in:] *Rozprawy cywilistyczne. Księga pamiątkowa dedykowana Profesorowi Edwardowi Drozdowi*, eds. M. Pecyna, J. Pisuliński, M. Podrecka, Warszawa 2013, p. 527 et seq.

5 See for more details: *M. Załucki*, Videotestament. Prawo spadkowe wobec nowych technologii, Warszawa 2018, *passim.*

authorised to take the will, sometimes in the presence of witnesses, they not always reflected the actual needs of the testators. The testators were not always aware of the requirements set out by the legal regulations for the last will declarations. Therefore, except for holographic or allographic wills, which were the forms of will the most frequently accepted by the laws of the particular countries, there were cases in practice when wills were prepared otherwise, without regard for the regulations applicable to the form. There have been some cases in which an attempt have been made to use for the disposition of property upon death of instruments which, at the moment of making the will, were a new technological element adequate to the needs of everyday life. Trying to declare their last will in a manner adequate to their own needs, the testators were using technical tools known to them from everyday life and wanted to use them also for the needs *mortis causa*. This brought about various effects, as confirmed with the following examples of failure on the part of the testators to follow the traditional legal structures, by which they wanted to dispose of their property upon death in a manner adequate to the their contemporary times, which not necessarily brought about the effect conceived by them.

3. Technical inventions and last will

In that regard we may commence from stating the fact that already in the 1930s there were practical attempts to use the technical inventions for legal succession purposes. One of the cases described in literature is the judgement of the Supreme Court of the Third Reich of 1935 applicable to a will recorded on a gramophone[6]. It was considered that although the authenticity of the will declared in that way raises no doubts, in accordance with the binding BGB provisions the will may not be declared with the use other media except for one's own handwriting, and only the legislator could decide otherwise. Despite the attempt to qualify such will as personal one, it was declared invalid, which was further slightly criticised by the doctrine, namely by indication that the requirement of one's own handwriting may not be treated literally, and a voice recording may be practically treated as one fulfilling the requirement of self preparing[7].

Similar conclusions were drawn nearly fifty years later, in 1980, by the Supreme Court of the American State of *California*. In a matter which actually did not refer to the succession law, the court decided that recording on an audio cassette may be treated equal with handwriting[8]. It is important because three

6 Reichsgericht judgement of 18 July 1935, Deutsche Juristenzeitung 1935, p. 78.

7 See *G. Ponath*, *Die Beschränkungen der Testierfreiheit durch das Testamentsrecht*, Frankfurt-Mannheim 2006, s. 251.

8 Supreme Court of California judgement of 23 October 1980, *Darley v. Ward*, http://law.justa.com/.

years later, in 1983, before the Supreme Court of the American State of Wyoming a case was heard as to whether the will of the testator recorded on an audio cassette may be valid[9], and the court referred to the decision of the Court of California. As regards the facts of the case of 1983, it was decided that the testator left the audio cassette in a closed envelope with an instruction to open it only if he died. And on the cassette he recorded the instructions applicable after his death. In accordance with the then binding regulations in the State of Wyoming, accordingly to the contents of § 2-6-112 of the Wills Statute 1977, the will for its validity required a special (written) form, prepared with the testator's own handwriting or typewriting, and the participation of witnesses. Further, the provisions of § 2-6-113 of the same Statute allowed the acceptance of a will to be valid even if prepared without witnesses, providing that it was handwritten by the testator and signed. In this case, one of the parties referred to the aforementioned judgement o 1980, claiming that the will recorded on an audio cassette fulfils the requirements for self-prepared wills, and that the voice recording on a cassette fulfils the same function in the times of an advanced technology as handwriting had fulfilled in the times of preparing the legal requirement for hand-written wills and should, therefore, be treated equal with handwriting. The argument was not supported by the court handling that succession case, as the judge indicated that the decision on the possible use of such recordings for the legal succession purposes might only be made by the legislator and not the court, which could not step outside of the binding law or create new forms of wills. The said will was classified as an oral will, and such form was not acceptable at the moment of the judgement in the State of *Wyoming*, and the right to the inherited property was refused on that basis. The judgement also met some critique at that time, as it was suggested that such dispositions upon death should be considered valid, equally as the possible wills recorded with the use of *audio-video* methods, since they may provide reliable evidence of the intent of the testator[10].

A similar situation appeared in 1996 in one of the succession cases considered in Canada (the Province of *Quebec*). In that case the testator left behind an envelope with a disc inside, on which he had personally written that it was his last will and had signed it. The disc comprised an electronic file with the dispositions *mortis causa*, reflecting the will of the testator. Despite the fact that the disposition did not comply with the formal requirements of the provisions of the local law, as the Civil Code of *Quebec* required a notarial form, a handwriting or attendance of witnesses (Article 712), the probate court decided that such disposition is valid, by applying the rule derived from the

---

9 Supreme Court of Wyoming judgement of 12 January 1983, Estate of Robert G. Reed, http://law.justa.com/.

10 Cf. *J.C. Smiley*, The Enforcement of Unwritten Wills – Estate of Reed, Land § Water Law Review 1985, No. 20, p. 279 et seq.

substantial compliance doctrine provided in Article 714 of the Civil Code of *Quebec* and accepted the inheritance based thereon11. Already then it was signalled that in the contemporary times a will should not be treated as a strict formal act, particularly because the development of technology forces the compliance with the regulations applicable to the form of a will rather as *ad probationem* than *ad solemnitatem*. Abiding by a particular form is to be first of all the evidence of drawing up the last will and is not to impose the structure of the will12. It was also noted that the times of electronic communication may bring about intensive changes in the legal regulations in that regard, in order to enable recording the human memory in the memory of a computer13.

In another case held in the Republic of South Africa in 2000, the testator had left a note with his forename, surname an identification number, and information that his will may be found on the hard disc of his computer in a specific directory14. The laws of the RSA required a written form for a will to be valid, plus the signature of the testator and the attendance of witnesses – see Article 2.1.a) of the Wills Act 1953. Despite such requirements, the court decided that thwarting of the last will of the testator by way of the non-compliance by the person with the technical formalities must be prevented, indicating that in the interpretation of the binding regulations the reality of the technological world in which the society is living must be taken into account15. In the doctrine a trend to liberalise the regulations regarding the form was indicated16 as well as the need to introduce legislative changes considering the fact that people are going to use electronic tools to dispose of their property *mortis causa*, whereas the law should not prevent the use of technological achievements17.

The similar actual situation was considered in Australia approximately at the same time. In the judgement of 14 March 2002, the Supreme Court of the State of Victoria considered the validity of disposition upon death made by the testator in a file recorded on the hard disc of a computer. The persons questioned as witnesses confirmed that the testator had informed them about

11 Quebec Supreme Court judgement of 3 Decemner 1996 r., *Rioux v. Coulombe*, [1998] 19 Estates and Trust Reports (2d) 201.
12 *N. Kasirer*, From Written Record to Memory in the Law of Wills, Ottawa Law Review 1997–1998, No 29, p. 43.
13*Ibidem*, p. 61.
14 "I, Malcom Scott MacDonald, ID 5609065240106, do hereby declare that my last will and testament can be found on my PC at IBM under directory C:/windows/mystuff/mywill/personal".
15 *MacDonald v. The Master*, [2002] South African Law Reports 64.
16 *M.C. Wood-Bodley, MacDonald v. The Master*: Computer Files and the "Rescue" Provision of the Wills Act, South African Law Journal 2004, No 121, p. 34 et seq.
17 *S. Snail, N. Hall, Electronic Wills in South Africa*, Digital Evidence and Electronic Signature Law Review 2010, No. 7, p. 70.

the intent to leave his last will exactly in that manner, and that the contents of the will on the hard disc complied with the declarations he made towards them. Analysing the facts of the case in the light of Article 9 of the Australian Wills Act 1997, the court decided that for the validity of the will and the related *grant of probate* it is necessary that three conditions are fulfilled: 1) there must be a document; 2) the document must comprise the will of the testator; 3) the testator must be willing to dispose of his property at the moment of drawing up the will. In the opinion of the court, each of the conditions was fulfilled in the considered case. Firstly, the file was recorded on a hard disc and might be displayed and duplicated, which gave it the attribute of a document. Secondly, the file included transparent and precise disposition with regard to the testator's property. Thirdly, the testator was willing to make the disposition at the moment of preparing the file. Therefore, on the computer printout of the will, despite the absence of the testator's signature, the grant of probate was given for the execution of the last will of the testator[18]. In some other Australian adjudication made nearly a decade later, the Supreme Court of the State of *Queensland* decided on 19 August 2011 that a file drawn up in Microsoft Word editor software, entitled "This is the last will and testament of Karen Lee Mahlo.docx", and recorded on the computer disc, many times sent between the testator and her partner through electronic mail, could be considered a valid will as to the principle, providing that the testator was willing to make the disposition at the moment of drawing it up. The court referred to the provisions of Article 18 of the *Succession Act* 1981, reading that for the validity of the will and granting of the probate a document must exist which, in the intent of the author, was supposed to be their last will. In that specific case the doubt referred not to the unacceptability of the electronic form of the will but to the willingness of the testator to dispose of her property[19]. The court found out that before her death the testator had prepared other wills signed by her personally, which in the opinion of the court signified that she was aware of the need of signing the disposition for the validity of the will. Although the very electronic form of a will would not contribute to its invalidity, as the court indicated that in other circumstances they would have accepted the validity of such disposition, yet upon confronting the will with the facts of the case, namely that other wills had been prepared in writing, as confirmed by the witnesses who had been told by the testator only about a written will, the court decided that the file left might have been only a draft of the will, without the intent of the testator to dispose of her property[20].

18 *Trethewey*, [2002] Victoria Supreme Court 83.
19 *B. Cannon*, Is an Electronic Will a Will?, Australian Estate Law Today of 16 February 2012, p. 1 et seq.
20 *Mahlo v Hehir*, [2011] QueenslandSupreme Court 243.

Also in Australia, quite recently (in 2013), two cases were considered by the Supreme Court of the State of Queensland with regard to the dispositions upon death made in electronic form but recorded otherwise. The first of the cases referred to an *audio-video* recording on a DVD[21]. As regards the facts of the case, the court decided that the DVD recording expressed the last will of the testator, which resulted first of all from the note made on the disc and from the very contents of the declaration recorded by the testator in that manner. In such circumstances, in the judgement of 27 November 2013, the court considered that such method of disposition fulfilled the requirements of Article 18 of the Succession Act 1981, as the DVD with the recording might be treated as a document being the carrier of the last will of the testator. Further, in the other case considered by the court, the testator made a note on his *iPhone*, entitled "This is my last will". Shortly afterwards, the testator committed a suicide, and the person named in the contents of the *iPhone* note as the executor of the will applied to the court for confirmation of the succession rights. In the judgement of 6 November 2013 the court decided that the application was valid, indicating that the wording of the electronic document and the contents thereof raised on doubts that the testator wanted to dispose of his property *mortis causa* in the manner specified in the note, and the electronic record in the "Notes" software of the *iPhone* was a document within the meaning of Article 18 of the *Succession Act* 1981[22].

The international doctrine, commenting on the above Australian judgements emphasised, among other things, the modern trend in the interpretation of the succession law by the Australian courts[23], and that in the era of smartphones or other electronic media, a growing number of informal dispositions upon death should be expected[24], which had already been perceived by the Australian system. The assessment of the judgements was basically uniformly positive[25], with the innovative way of thinking of the court and its willingness to view the established legal principles from another perspective in the new technological reality praised. It has also been suggested that in the future, the succession law provisions could follow that way[26].

---

21 *Mellino v. Wnuk*, [2013] Queensland Supreme Court 336.
22 Queensland Supreme Court judgement of 6 Novemner 2013, Re: Yu, Queensland Law Reporter 2013, No. 48, p. 6–7.
23 Cf. *L. Gordon*, Wills – The Age of the Digital Will, Trust & Private Client of 17 August 2015., p. 1.
24 See, for example, a note from a UK law firm addressed to its clients: Clever, Fulton, Rankin, A Legally Valid iPhone Will, http://www.cfrlaw.co.uk/site/wp-content/uploads/2014/02/a-legally-valid-iphone-will.pdf.
25 *B. Nillson*, Can a Will Be Made On an iPhone, Lexology of 26 February 2014, p. 1.
26 *Ch. Young*, *Y. O'Byrne*, Dawn of the iPhone Will, STEP Journal 2014, p. 45.

The innovativeness of the Australian solutions may be supported by other examples[27]. One of them is the judgement of the Supreme Court of the State of Victoria of 20 September 2013, in which a will made in an *audio-video* format with the use of a Web camera was considered valid[28]. The examples of modern interpretations of the succession law standards originating from the Australian jurisdiction have created, as it may be expected, the grounds for some judgements in the succession cases of other legal systems. Although a will made with the use of modern technologies in breach of the regulations applicable to the form has not always been accepted, it has changed the perception of the traditional instruments of the succession law.

This may be confirmed with the judgements in cases in which the testators made their last will declarations with the use of the new technology, in breach of the binding regulations applicable to the form of a will, as made by the American courts, which also includes cases in which the courts refused to accept the validity of the will and grant of probate. For example, in one of the cases the testator availed of a tool popular in the USA for preparing documents of legal nature *on-line*, namely through the *Legalzoom* site. As regards the facts of the case, it was determined that the testator filled in a complicated form available on the Web, determining precisely the contents of her last will upon death, whereas the site sent her a paper version of the will before she got ill. The testator failed to sign the will at that time. Later she was admitted to a hospital where she requested the delivery of the will, and she obtained it, but she still failed to sign it being wrongly convinced that the signature must be put in the presence of a notary public. Before the notary public arrived at the hospital, the testator lost consciousness and died within a few days. The court of higher instance of the State of *Connecticut* in its judgement of 17 May 2013 decided that it was not possible to accept a will prepared in that manner to be valid, as it contradicted the requirements of the Statute of Wills of the State of Connecticut. Accordingly to the contents of § 45a–251 of the Statute, the will must be made in writing and signed by the testator and the witnesses. The local law does not accept any solutions based on the *substantial compliance* doctrine, which would allow the validity of the disposition upon death. In the opinion of the court, the alternative techniques of preparing wills, even if desirable, had to be approved by the legislator. The then current state of affairs did not allow for another judgement in the said case. If a person wanted to make a will, then, in the opinion of the court, they had to do it in the way specified in the Statute[29].

---

27 *R. Kako*, Wills and Estates: Informal Wills and Smartphones, Law Society Journal 2014, No. 4, p. 42 et seq.

28 *Estate of Sheron Jude Ladduhetti*, unpublished judgement.

29 *Litevich* v. *Probate Court*, 2013 West Law Nr 2945055.

In another case which was also held in 2013 before a court in the State of *Ohio*, the problem of drawing up and signing a will on a tablet was considered. The will of the testator was written with a pen on a tablet of one of the disposition witnesses, whereas the testator signed such electronic document in the presence of the witnesses, and then the witnesses put their signatures thereon. After the death of the testator the will was printed and submitted to the grant of probate procedure[30]. In accordance with Article 2107.03 of the Ohio Revised Code, a will other than oral, required a written form in order to be valid, handwritten or typed, the signature of the testator and the signatures of the witnesses present at the moment of making the disposition. In the opinion of the court, a verification was required whether the document had a written form and was signed as in the aforementioned standard, and whether there was sufficient evidence that the document was the disposition of the testator upon death. Analysing the case in that regard, the court indicated that, firstly, a document made on a tablet fulfilled the criteria of a written form, as no regulation required that the handwriting was recorded in any specific manner, so recording the handwriting on a tablet was allowed. Secondly, the court confirmed that the electronic document reflected the graphic form of signature, so might be considered to fulfil the aforesaid requirements. Despite the doubts regarding the absence of an attestation clause by the witnesses, namely a confirmation that the respective document was the last will of the testator[31], the court considered that in the said case they dealt with a will, in relation to the application of the standard resulting from Article 2107.24 of the Ohio Revised Coe, based on the *substantial compliance* doctrine. In the opinion of the court, there was transparent and convincing evidence in this case that the document which did not fulfil all of the formal requirements, might form basis for coming into inheritance[32].

The judgement brought about an avalanche of comments, both in media and in the doctrine. The innovative concept of the court was emphasised, among other things[33], as well as the need to change the succession law in consideration of new technologies[34], missing regulations applicable to

30 *Estate of Javier Castro*, Quinnipac Probate Law Journal 2014, No. 4, p. 412.

31 This type of clause is a frequent formal requirement of the will used by legislators in common law countries. See: *R. Kerridge*, *Parry and Kerridge: The Law of Succession*, London 2016, p. 53.

32 Cf. Justification of the judgment in the case: Estate of Javier Castro, http://www.lsslawyers.com/.

33 *A. La Ratta*, *M.O. Dibble*, What's in a Name? Writings Intended as Wills, Probate & Property 2014, No. 3, p. 47.

34 *B. Dicken*, Judge Rules That a Will Written and Signed on Tablet is Legal, The Chronicle of 25 June 2013, http://www.chroniclet.com/; *G. Smith*, Ohio Judge Rules Electronic Will Written on Tablet is Valid, Berk Law Group of 12 November 2013, http://berklawgroup.com/.

electronic wills[35], the necessity of updating the succession law to be compliant with the modern times[36], or the need for flexibility in applying laws. Even the judge making a decision in that case, requested for comments by the media, indicated that the state legislature should update the laws, as there was going to a growing number of such cases in the future[37]. Basically, the view must be shared, particularly because today's reality involves actually more and more electronics, compared to the previous years, and the first effects of that may also be seen in the succession law, where the particular testators have tried to avail of the instruments known to them in the *inter vivos* legal relations for the *mortis causa* purposes.

4. Rethinking needed

The need of revising the views on applying the traditional concepts of the succession law with regard to inheritance based on a will has already been raised in other places and other countries. It has been frequently suggested that the contemporary succession reality differs significantly from the times when most of the legal acts were drawn up in that regard, which also refers to the form of a will. For example, it has been mentioned in Poland that the existing forms of will raise various doubts, are outdated and fail to take into account the civilisation and technology development[38]. Such views have also been presented in other European countries, just to mention Germany, Switzerland, the Netherlands, or the UK. The arguments must be basically supported. The succession law requires a reform in that regard[39]. The matter is up-to-date on the background of the particular European succession law systems, the more so because some of the adjudication problems have been encountered in practice, although they may not be found in the published judgements. Both on the legal consulting sites and in the doctrine, there have been found signals of the existence of certain difficulties in using technology for the purpose of succession law. For example, there have appeared questions about the recording of the last will on an audio cassette, recording of voice as the evidence of making an oral will, the possibility of preparing an electronic will (a file in a text editor), or the possibility of using an electronic signature in making a will. All of the problems, in the light of the currently binding

35 *J.A. McKinsey, D.D. Burke*, Carper's Understanding the Law, Stamford 2015, p. 666.
36 *D. Caroll*, Validity of an Electronic Will, Insurance & Investment Journal of 28 January 2014, http://insurance-journal.ca/.
37 As indicated by the media statements: *K.B. Gee*, *Electronic Wills At Our Fingertips. Should They Be Admited to Probate?*, Cleveland Metropolitan Bar Journal 2013, No. 12, p. 20–21.
38 Cf. *A. Pabin, Testament jako akt sformalizowany – uwagi w sprawie przyszłego kształtu regulacji dotyczących formy rozrządzeń testamentowych*, Studia Prawnicze 2016, No. 1, p. 119.
39 *M. Załucki*, *Perspektywy rekodyfikacji polskiego prawa spadkowego*, [in:] *50 lat kodeksu cywilnego. Perspektywy rekodyfikacji*, ed. M. Załucki, Warszawa 2015, p. 355 et seq.

regulations with regard to the form of a will, would probably be handled negatively for the testator in the particular European legal systems[40]. So if a testator with the habitual place of residence in Poland decided to make a will in a modern way, the effort would probably be wasted in arriving at the intended effect. Meanwhile, it seems that the necessity of adjusting the regulations regarding the form of a will to the current requirements is unavoidable.

5. Conclusion

Designing the succession law standards, the modern legislator must do it such as to reflect the needs of the society in the legal provisions. One of the needs seems to be the possibility of using the opportunities created by new technologies in disposing property *mortis causa*. In order to ensure the execution of the testator's will upon death, the legislators must search for such instruments which may become an alternative to the solutions originating in the Roman times. The traditional forms of a will should not, therefore, be the only forms of disposing of property upon death. It is high time to start a discussion on adjusting the succession law instruments to the current times. New technologies are also new challenges for inheritance law. The requirement to draw up a will by hand, or any other traditional way, which is known to most of today's legal systems, cannot now be understood in the same way as when the traditional form of the will was created. New formats for making declarations of will, based on technical instruments, are, as one might think, also tools ready to be used in succession law. The reflection of the testator's last will should still be the most important value of the inheritance law, although the instruments that are adequate for the times in which the testator lives should also serve to reflect this will. Therefore, the law of succession should be adapted to modern times.

References:

1. *Cannon B.*, Is an Electronic Will a Will?, Australian Estate Law Today of 16 February 2012.
2. *Caroll D.*, Validity of an Electronic Will, Insurance & Investment Journal of 28 January 2014
3. *Dicken B.*, Judge Rules That a Will Written and Signed on Tablet is Legal, The Chronicle of 25 June 2013
4. *Gee K.B.*, *Electronic Wills At Our Fingertips. Should They Be Admited to Probate?*, Cleveland Metropolitan Bar Journal 2013, No. 12.

40 Without a detailed analysis of the facts, it is difficult to reach categorical conclusions, after all, it is possible to use even the instrument of conversion of dispositions of property upon death.

5. *Gordon L.*, Wills – The Age of the Digital Will, Trust & Private Client of 17 August 2015.
6. *Kako R.*, Wills and Estates: Informal Wills and Smartphones, Law Society Journal 2014, No. 4.
7. *Kasirer N.*, From Written Record to Memory in the Law of Wills, Ottawa Law Review 1997–1998, No. 29.
8. *Kerridge R.*, *Parry and Kerridge: The Law of Succession*, London 2016.
9. *La Ratta A.*, *Dibble M.O.*, What's in a Name? Writings Intended as Wills, Probate & Property 2014, No. 3
10. *Nass H.E.*, We Can't Stop Loving You, Trusts & Estates 2005, issue 8.
11. *Nillson B.*, Can a Will Be Made On an iPhone, Lexology of 26 February 2014.
12. *Pabin A.*, *Testament jako akt sformalizowany – uwagi w sprawie przyszłego kształtu regulacji dotyczących formy rozrządzeń testamentowych*, Studia Prawnicze 2016, No. 1.
13. *Ponath G.*, *Die Beschränkungen der Testierfreiheit durch das Testamentsrecht*, Frankfurt-Mannheim 2006.
14. *Pound R.*, *The Role of the Will in Law*, Harvard Law Review 1954, issue 1.
15. *Smith G.*, Ohio Judge Rules Electronic Will Written on Tablet is Valid, Berk Law Group of 12 November 20131 *McKinsey M.O.*, *Burke D.D.*, Carper's Understanding the Law, Stamford 2015.
16. *Snail S.*, *Hall N.*, *Electronic Wills in South Africa*, Digital Evidence and Electronic Signature Law Review 2010, No. 7.
17. *Świrgoń-Skok R.*, *Swoboda dysponowania majątkiem na wypadek śmierci w ujęciu historycznoprawnym*, [in:] *Rozprawy cywilistyczne. Księga pamiątkowa dedykowana Profesorowi Edwardowi Drozdowi*, eds. M. Pecyna, J. Pisuliński, M. Podrecka, Warszawa 2013.
18. *Wood-Bodley M.C.*, *MacDonald v. The Master*: Computer Files and the "Rescue" Provision of the Wills Act, South African Law Journal 2004, No. 121.
19. *Young Ch.*, *O'Byrne Y.*, Dawn of the iPhone Will, STEP Journal 2014.
20. *Załucki M.*, *Forma testamentu w perspektywie rekodyfikacji polskiego prawa spadkowego. Czas na rewolucję?*, Państwo i Prawo 2017, issue 3.
21. *Załucki M.*, *Perspektywy rekodyfikacji polskiego prawa spadkowego*, [in:] *50 lat kodeksu cywilnego. Perspektywy rekodyfikacji*, ed. M. Załucki, Warszawa 2015.
22. *Załucki M.*, Videotestament. Prawo spadkowe wobec nowych technologii, Warszawa 2018.

23. *Zimmermann R., Testamentsformen: »Willkür« oder Ausdruck einer Rechtskultur?*, Rabels Zeitschrift für ausländisches und internationales Privatrecht 2012.

Foreign Direct Investment and Economic Growth in Africa: Evidence from Oil Exporting Countries

Aderemi Timothy Ayomitunde
Department of Economics, Olabisi Onabanjo University, Ogun State, Nigeria

Doi: 10.19044/elp.v6no2a2 URL:http://dx.doi.org/10.19044/elp.v6no2a2

Abstract

It has been observed that the catalogue of empirical studies on FDI inflows in Africa in the recent time focused on determinants of FDI inflows in the continent. Meanwhile, the studies that examined the aftermath effects of FDI inflows on the economic growth of the entire continent cannot be totally insulated from heterogeneity problems. Therefore, this paper pooled the first three biggest economies with similar economic structure and examined the relationship between FDI inflows and economic growth in the last 28 years. However, the finding that originated in this study submitted that FDI has a positive relationship with economic growth in the selected countries. The coefficient of FDI shows that a unit change in FDI leads to 5.6138 increment in economic growth of the countries, though not significant at 5% level of significance. Consequently, due to the findings that emerged in this study, it is expedient that this paper recommends the following; the policy makers in Nigeria, South Africa and Egypt in particular and African continent as a whole should see FDI as a variable that has the potential capacity to propel economic growth of the continent. Therefore, all hands must be on deck by the policy makers in this continent to formulate appropriate policy measures that will create a friendly and attractive investment climate for foreign investors. This in turn will catalyze further inflows of FDI in the continent. Hence, a sustainable growth will be guaranteed in the long run.

Keywords: FDI, Economic Growth, Nigeria, South Africa and Egypt.

1.0 Introduction

Some decades ago, overseas development assistant was the principal source of foreign capital inflows in Africa. Majority of African countries directly and indirectly depended on this variable for most of their developmental projects. Meanwhile, there has been a paradigm shift in terms of inflows of foreign capital in Africa in the recent time. Foreign direct investment inflows have since 2005 become the principal source of foreign capital inflows to Africa. This cross border investment has overtaken overseas development assistance (ODA) in terms of size. Available evidence attests that foreign direct investment contributes about 20% of fixed capital formation in Africa in the last two decades. However, Africa as a continent is still lagging behind in attracting FDI inflows in the past few decades relative to the other regions of the world. According to (UNCTADstat, 2018), Europe accumulated 49% of global FDI inflows over the period of 1970 to 2014, and America and Asia attracted 29% and 20% concurrently within the same period, meanwhile, 3% of the global FDI inflows moved to Africa over the same period.

Consequently, the direction and size of this foreign capital has been on the increase but unevenly distributed across countries and sectors in the continent. It has been submitted that 15 oil-rich countries accumulated about 75% of FDI inflows in Africa (ADBetal, 2011).

As a matter of fact the trend and direction of Africa`s FDI inflows from 1970 till date differ from one sub-region to another. The availability of natural resource endowments in West Africa, North Africa and South Africa have been identified as a major contributory factor that made these sub regions to be the destination of FDI inflows in Africa.

However, the UNCTAD (2006) indicates that FDI inflows to West African sub region in the past decades is principally dominated by inflows to Nigeria. The country received estimated 70% of the total FDI inflows in sub-regional block. Similarly, the end of the apartheid regime in South Africa facilitated sporadic inflows of FDI in the country. It is worth of note that, from 1995-99 the Southern Africa`s FDI inflow performance rose above the continent's average performance. Despite the negative impact of political instability and corruption on investment climate of the country in the past few years. The industrial revolution that characterized the country has catalyzed the impressive performance the economy registered in the recent time. FDI inflows in the country rose by US$3.2 approximately 43% in 2016. (UNCTAD, 2018).

In the same vein, the discovery of gas reserves by foreign multinational companies has orchestrated the dominance of Egypt in North Africa sub region as the principal destination of FDI inflows in the time past. Egypt`s FDI inflows rose by 17% in 2016 which accounted for about estimated 11% increment of the North Africa`s performance. (UNCTAD, 2018).

Moreover, investment in the productive sectors of the economy would spur growth. The crucial roles in which investment plays in expanding the economic frontiers of nations has sparked off several studies on FDI inflows in Africa. The catalogue of studies on FDI inflows in the continent in the recent time focused on determinants of FDI inflows in the continent. See Ayadi, Ajibolade, Williams and Hymann (2014), Morisset (2000), Asiedu (2006), Chakarabarti (2001), Bende-Nabende (2002), Lemi and Asefa (2002) and

Anyanwu (2012). However, Nigerian, South African and Egyptian economies have been the biggest economies in the recent years. Despite the fact that several studies have been carried out about the role of foreign capital on economic growth of African economies. These studies cannot be totally insulated from heterogeneity problems. Therefore, this paper pooled the first three biggest economies with similar economic structure together to examine the relationship between FDI inflows and economic growth in the last 28 years. In the literature, there has not been any attempt to pool the three biggest economies in a panel data analysis in the recent time. Hence, the uniqueness of this study.

2.0 Literature Review

2.1 Theoretical Literature Review

The theoretical framework for this research work is reviewed as follows;

2.2 Traditional Neoclassical Growth Theory

Traditional neoclassical models of economic growth came into limelight as a direct outgrowth of the Harrod-Domar and Solow models. The duo models lay emphasis on the paramount role of investment in an economy. The liberalization of national markets invariably draws incremental domestic and foreign investment which consequently increases the rate of capital accumulation in the host economy. Similarly, raising domestic savings rates facilitates capital- labour ratio and per capital incomes in capital-poor developing economies.

The Solow neoclassical growth model in particular is represented as the seminar contribution to the neoclassical theory of growth as a result of this monumental contribution, Robert Solow got the Nobel Prize in Economics. Solow Model expanded the Harrod-Domar model by including a second important economic variable, labour alongside with third independent variable technology, to the growth equation. Consequently, Harrod-Domar model is based on the assumption of the fixed coefficient, constant returns to scale. But the assumption underlining Solow`s neoclassical growth model is diminishing returns to labour and capital separately and constant returns to both factors simultaneously.

2.3 Empirical literature

This section presents the extensive review of the selected and relevant literature of FDI inflows in Africa specifically.

While estimating the relationship between religious tension risk, share of oil in exports, level of corruption, domestic credit and FDI inflow in Africa, UNACA (2009) uses a panel data of thirty one African countries between 1984 and 2009 to argue that religious tension risk, share of oil in exports, size of market, past foreign direct investment inflows, level of corruption and domestic credit are the principal variables that determine net FDI inflows in Africa. In another perspective, Ojo and Alege (2010) estimated a panel data of twenty seven nations in Sub Saharan Africa while examining the impact of global financial crisis, policy implications on sudden rise on FDI inflows, and financial and economic development in Africa. It could be established from the finding of the paper that continuous rise in economic activities propel inflows of FDI in Africa.

However, Chakarabarti (2001) adopted econometric techniques and a range of robustness/sensitivity analysis to analysis the major variables that derive FDI inflows in thirty one African economies. The author submitted that both natural resources and market factors are the major variables that stimulate FDI inflows in Africa.

Consequently, Akinlo (2003) estimated the impact of FDI inflows in Africa with the aid of a panel data analysis of twelve African countries. It was discovered that the impact of FDI inflows was primarily felt by economic growth via accumulation of capital, which was contrary to increasing productivity. While contributing to the literature, Ogun, Egwaikkhide and Ogunleye (2012) estimated the nexus between FDI and real exchange rate in some selected Sub-Saharan Africa (SSA) nations with Granger causality and simultaneous techniques. The researchers found out that FDI flows are sensitive to real exchange rate movements in Sub-Saharan Africa, and a statistically significant relationship exists between the two variables under consideration as well. Similarly, Nyamrunda (2012) estimated Augmented Dickey Fuller test (ADF), Vector error Correction Model (ECM) and the Johansen`s cointegration, to assert a significant long-run equilibrium relationship between the exchange rate of Tanzanian shilling and net FDI inflow within the period under consideration. In the same vein, Saibu and Akinbobola (2014) utilized vector error correction modeling (VECM) mechanism in analyzing the link between globalization, FDI and economic growth in some selected Sub Saharan Africa. The paper corroborated that trade liberalization had an insignificant effect on economic growth process of the SSA. And also, the upsurge in the capital flows to African nations was not sufficient enough to prevent the African economies from the global economic shocks.

Furthermore, Adams (2009) contributed to the literature by using OLS analytical framework to investigate the nexus between FDI, domestic investment and economic growth in Sub Saharan African from 1990 to 2003. It was discovered from the study that FDI was positively and significantly correlated with GDP, however, the finding showed an inverse relationship when the country specific effects were factored in.

Moreover, Gui-Diby (2014) employed GMM technique to investigate FDI inflows and economic growth in 50 countries in Africa between 1980 and 1994. The finding from the GMM estimation confirmed the existence of a negative relationship between FDI and economic growth over the period 1980-1994, meanwhile positive relationship was the case between 1995 and 2009. The significant improvement in the business environment and the multiplier effect of export on the countries was identified as the contributory factor that orchestrated the positive impact in the latter period of the study.

In conclusion, the empirical studies above showed that literature on FDI inflows in Africa focused more on its determinants. Hence, the relevance of this study.

2.4 An Overview of the Selected Oil Exporting African Countries

Table 1: Overview Indicators of the Selected Oil Exporting Countries in Africa (2014)

Country	FDI inflows % GDP	FDI inflows (constant 2005 US$B)	GDP (constant 2005 US$B)	GDP growth rate %	GDP per capita (constant 2005) US$	Population (M)	HDI	WTO (Year of joining)
Egypt	1.7	4.8	286.5	2.2	3199	89.6	0.689	1995
Nigeria	0.8	4.7	568.5	6.3	3203	177.5	0.514	1995
South Africa	1.6	5.7	350.1	1.5	6483	54	0.665	1995

Sources: WB, WDI, UNDP, and WTO (2015)

The table above shows the total population of the selected African countries as reported in 2014 with estimated 321.1 million, which comprises 29 % of the Africa`s population. Population is one of the major determinants for market-seeking FDI. Nigeria is the largest country, followed by Egypt and South Africa among the oil exporting countries in Africa. In terms of FDI inflows as a percentage of GDP, Egypt is the highest, followed by South Africa and Nigeria. Meanwhile, South Africa has the highest FDI inflows, followed by Egypt and Nigeria respectively. In terms of the size of the economy, Nigeria is the biggest, followed by South Africa and Egypt concurrently. But the Human Development Index (HDI) is a crucial variable that determines a country`s development levels. This is usually constructed from three sub-indices: the life expectancy index, education index, and GNI index. Consequently, human development index puts Egypt on top, followed by South Africa and Nigeria respectively.

Table 2: Composite Risk Index of the Selected Oil Exporting Countries in Africa (2014)

Country	1984-93	1994-2003	2004-2014
Egypt	51.20	68.57	64.39
Nigeria	48.50	54.39	62.14
South Africa	61.16	71.67	71.20

Source: Authors` Computation from the PRS Group, International Country Risk Guide (2018)

The composite risk index measures a country's overall risk. This is derived from a country's political, economic, and financial risks. This index is normally issued by the PRS Group. However, the index value ranges between a score of 0 and 100. 0 connotes a very high risk and 100 a very low risk. Therefore, from the table above, it could be pinpointed that in the last few decades, the South African economy has been characterized with the least risky economy to do business in Africa, followed by Egypt and Nigeria. This indicator is a strategic variable that helps investors to make decision about which economy to invest in.

Table 3: The Worldwide Governance Indicators (WGI) for the Selected Oil Exporting Countries between 2005 and 2014

Country	Control of Corruption	Rule of Law	Regulatory Quality	Gov. Effectiveness	Political Stability	Voice and Accountability
Egypt	-0.6	-0.3	-0.4	-0.6	-1.0	-1.1
Nigeria	-1.8	-1.3	-0.8	-1.0	-2.0	-0.8
South Africa	0.1	0.1	0.5	0.4	0.1	0.6

Source: Authors` Computation from the WGI, 2015

The "Worldwide Governance Indicators" (WGI) advanced by the World Bank in 1996 is comprised of 6 governance indicators for 215 countries. The indicators are as follows: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. It is assumed that the WGI shows the quality of institutions and their impacts on the business environment in host countries. It is worth of note that the value of the index ranges from -2.5, which implies weak governance performance and 2.5, denoting strong governance performance.

However, the above table indicates that South Africa shows a relatively better governance performance among the three countries. Nigeria is the worst among the three countries.

Table 4: Ease of Doing Business (Overall Distance to Frontier (DTF)) for the Selected Oil Exporting Countries between 2010 and 2016

Country	Ease of Doing Business Index (overall rank)
Egypt	56.7
Nigeria	45.2
South Africa	68.1

Source: Authors` Computation from the World Bank's Doing Business project.

In 2002, the World Bank's Doing Business Project inaugurated the Ease of Doing Business index. This index measured the business environment of 189 countries across the world with the following parameters: business regulations and deals mainly with the most relevant procedures needed for foreign companies within the host country. Meanwhile, the index utilizes 10 indicators which are as follows: Starting a Business, Dealing with Construction Permits, Getting Electricity, Registering Property, Getting Credit, Protecting Minority Investors, Paying Taxes, Trading across Borders, Enforcing Contracts, and Resolving Insolvency. Consequently, the World Bank's Doing Business Project annual report on the ease of doing business in 199 countries uses the benchmark output of the quality of the business environment, the country which ranked 1 is considered to have the most friendly business environment, and the country which is ranked 189 is considered to have the least friendly business environment. However, despite the importance of that ranking, it does not provide clear indications about progress of performance, since some countries may achieve progress but that progress may not necessary leads to changes in their ranking. As a result of this, in 2005, the World Bank's Doing Business Project introduced another measurement, tagged "Distance to Frontier" (DTF). It is important to state that this new measurement aids to assess how a specific country improves its business environment. Therefore, the table above indicates that South Africa has the most friendly business environment amongst the three countries, with an average Ease of Doing Business score of 68.1 over the period 2010-2016, followed by Egypt at 56.7 and Nigeria 45.2 concurrently.

3.0 Methodology

Introduction

This paper utilized secondary data from 1990 to 2017. The data on FDI were sourced from UNCTAD database published by World Bank and data on GDP were extracted from World Bank Development Indicator. The study focused on the first three largest economies in Africa which are Nigeria, South Africa and Egypt.

3.1 Model Specification

GDP = F (FDI) ---1

The model 1 can be linearized to form model 2

$LnGDP_{it} = \propto_i + \beta LnFDI_{it} + \varepsilon_{it}$---2

$GDP_t = \alpha_0 + \sum_{i=0}^{p} \alpha_1 FDI_{t-1} + \sum^{p} \alpha_2 GDP_{t-1} + \varepsilon_{1t}$------------------------- 3

$FDI_t = + \beta_0 + \sum_{i=0}^{p} \beta_1 FDI_{t-1} + \sum_{i=0}^{p} \beta_2 GDP_{t-1} + \varepsilon_{2t}$---------------------- 4

Where $LnGDP_{it}$ is log of real GDP to proxy economic growth, $LnFDI_{it}$ is log of FDI inflows,. Meanwhile $\propto$ $is\ an\ intercept\ and\ \beta\ is\ a\ slope\ parameters.$

i= 1…3, t= 1990------------2017.

Table 1: Unit Root Test

Variables	ADF - Fisher Chi-square			PP - Fisher Chi-square		
	@Level	@First Difference	Remarks	@Level	@First Difference	Remarks
RGDP	26.1646 **	**	I (0)	- 3.8679**	**	I (0)
FDI	2.89146 **	24.0912**	I (1)	3.64109* *	62.3090**	I (1)

** %5 level **Source; Authors` Computation (2018)**

In order to establish the existence or otherwise of stationarity of time series data of the variables adopted for this study, the data were subjected to a unit root test with the aid of the standard Panel Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. I.e. (ADF - Fisher Chi-square. PP - Fisher Chi-square). As the table above indicates, data on FDI has a unit root, but becomes stationary after first differencing. However, real Gross Domestic Product data does not possess a unit root.

TABLE 2: Pedroni Residual Cointegration Test

Included observations: 84
Cross-sections included: 3
Null Hypothesis: No cointegration
Trend assumption: No deterministic trend
User-specified lag length: 1
Newey-West automatic bandwidth selection and Bartlett kernel

Alternative hypothesis: common AR coefs. (within-dimension)

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-0.231375	0.5915	-0.231375	0.5915
Panel rho-Statistic	0.360344	0.6407	0.360344	0.6407
Panel PP-Statistic	0.024168	0.5096	0.024168	0.5096
Panel ADF-Statistic	0.456184	0.6759	0.456184	0.6759

Alternative hypothesis: individual AR coefs. (between-dimension)

	Statistic	Prob.
Group rho-Statistic	1.210860	0.8870
Group PP-Statistic	0.668291	0.7480
Group ADF-Statistic	1.181116	0.8812

Cross section specific results

Source; Authors` Computation (2018)

From the table above it could be pinpointed that the variables, real GDP and FDI under consideration for this analysis are I (0) and I (1) respectively. Despite the fact that they may have a deviation in the short run but there is high tendency these variables possess a long run equilibrium relationship. In order to examine the existence or otherwise of the long run equilibrium relationship among these variables, Pedroni Residual Cointegration test was estimated. The results presented in the above table show that there is no cointegration among the variables. In other words, long run equilibrium relationship does not exist among the variables. As a result of this, a panel least square was estimated to examine the impact of FDI on economic growth of the selected oil exporting countries in Africa.

Table 3: Descriptive Statistics of Annual Data Series (1990-2017)

Descriptive Statistics	FDI	RGDP
Mean	3.58E+09	7.8E+148
Median	2.24E+09	3.85E+13
Maximum	8.92E+09	2.2E+150
Minimum	1.00E+09	1.96E+13
Std. Deviation	2.51E+09	4.1E+149
Skewness	0.786992	5.003702
Kurtosis	2.337514	26.03704
Jargue-Bera	10.20710	2207.986
Probability	0.006075	0.000000
Sum	3.01E+11	6.5E+150
Sum. Sq. Deviation	5.21E+20	1.4E+301
Observation	28	28

Source; Authors` Computation (2018)

In this section, descriptive statistics of the data has been estimated and presented in the above table. This accounts for the vital information about the sample series such as the mean, median, minimum and maximum values; and the distribution of the sample measured by the skewness, kurtosis and Jaque-Bera statistics. However, in carrying out econometric analyses, it is important to factor in the assumptions of normality and asymptotic properties of data series.

Table 4: Pairwise Dumitrescu Hurlin Panel Causality Tests

Lags: 2

Null Hypothesis:	W-Stat.	Zbar-Stat.	Prob.
RGDP does not homogeneously cause FDI	0.72943	-1.04415	0.2964
FDI does not homogeneously cause RGDP	0.86900	-0.94576	0.3443

Source; Authors` Computation (2018)

This section examines the causal relationship between FDI and economic growth within Pairwise Dumitrescu Hurlin Panel Causality Tests. It could be concluded from the above table that there is no causal relationship between foreign direction investment and economic growth in these countries. This result further confirmed the previous results in table 2 which showed the absence of cointegration between the variables.

Table 4: The Impact of Foreign Direct Investment in Oil Exporting African
Dependent Variable: RGDP

Variable	Coefficient	t-statistics	P-value
FDI	5.6138	0.21	0.8340
C	-2.1148	-0.17	0.8622
R-Squared	0.559		
Adjusted R-Squared	0.292		
Durbin-Watson stat	2.07		

Source; Authors` Computation (2018)

The table 4 above indicates that the variable FDI has a positive relationship with economic growth in the selected countries. This result is similarly to the findings of Lumbila (2005), and Ojo and Alege (2010) despite adoption of different methodology. The coefficient of FDI shows that a unit change in FDI leads to 5.6138 rise in economic growth of the countries under consideration, though not significant at 5% level of significance. By and large, FDI inflows had contributed positively to African economic growth, and this had been the sources of portfolio investment in this continent. Moreover, the explanatory/ independently variable, foreign direct investment explained about 56% of the systematic variations in the dependent variable, economic growth, leaving 44% unexplained as result of random chance. This implies that the model is relatively good for the analysis. Meanwhile, after adjusting for the loss in the degree of freedom, the explanatory power reduces to 29%. In the same vein, the value of the Durbin-Watson stat in the table shows the absence of serial correlation in the model.

3.2 Conclusion and Recommendations

This paper has critically investigated the impact of FDI on economic growth in some selected African economies namely, Nigeria, South Africa and Egypt over the period of 1990 to 2017. Consequently, the results of the study are summarized as follows: FDI inflows has a positive impact on economic growth in the selected countries. This implies that FDI inflows have been contributing to the growth of the productive sectors of the economies under consideration in particular and Africa as a whole.

In the same vein, due to the findings that emerged in this study, it is expedient that this paper recommends the following; the policy makers in Nigeria, South Africa and Egypt in particular and African continent as a whole should see FDI as a foreign capital that has the potential capacity to propel economic growth of the continent. Therefore, all hands must be on deck by the policy makers in this continent to formulate appropriate policy measures that will create a friendly and attractive investment climate for foreign investors. This in turn will catalyze further inflows of FDI in the continent. Hence, a sustainable growth will be guaranteed in the long run.

References:

1. Adams, R. (2004). Economic Growth, Inequality and Poverty: Estimating the Growth Elasticity of Poverty. World Development, 32(12), 1989-2014
2. ADB, OECE, UNDP and UNECA (2011). ``African Economic Outlook 2011: Africa and its emerging partners`` African Development Bank, Tunis, Tunisia
3. Akinlo, A. E. (2003). ``Foreign Direct Investment and Economic Growth in Sub-Saharan Africa.``RISEC; International Review of Economics and Business 50(4) (December): 569-580
4. Asiedu, E. (2006). Foreign Direct Investment in Africa: Role of Government Policy, Institutions and Political Instability. World Economy, 29(1), 63-77.
5. Anyanwu, J.C. (2012). Why does foreign direct investment go where it goes?: New evidence from African Countries. Analysis of Economics and Finance, 13(2); 425-562
6. Ayadi, O.F., Ajibolade, S., Williams, J. & Hyman, L.M. (2014). Transparency and Foreign Direct Investment into Sub-Saharan Africa: An Econometric Investigation. African Journal of Economic and Management Studies. .5(2)
7. Bende-Nabende, A. (2002). "Foreign Direct Investment Determinants in Sub-Saharan Africa: A Co-Integration Analysis," Economics Bulletin 6 (4): 1-19.

8. Chakrabati, A. (2001). The determinants of foreign direct investment: Sensitivity analyses of cross country regression. Kyklos, 54(1): 89-11.
9. Domar, E.D. 1946. “Capital Expansion, Rate of Growth and Employment”, Econometrica 14: 137-150.
10. Ease of Doing Business data available (www.doingbusiness.org)
11. Gui-Diby S. L. (2014). Impact of Foreign Direct Investment on Economic Growth in Africa: Evidence from three decades of panel data analyses. Research in Economics, 68: 248-256Harrod, R. F. (1948). Towards a Dynamic Economics: Some recent developments of economic theory and their application to policy. London: Macmillan
12. Lumbila, K. N. (2005). What makes FDI work? A panel analysis of the growth effect of FDI in Africa. Africa Region Working Paper Series
13. Morisset, J. (2000). “Foreign Direct Investment in Africa: Policies Also Matter,” Transnational Corporations 9 (2): 107-25.
14. Nyamrunda G.C. (2012). Lower Exchange Rates and FDI inflows in Least Developing Economies: Evidence from Tanzania. Advances in Management and applied Economics, 2(4): 1-12.
15. Ojo, J.A.T. & Alege, P.O. (2010) Global Financial and Macroeconomic Fluctuation-Implication for African Economic Development. African Economic and Business Review. 8(2): 48-82.
16. Ogun, O. Egwaikhide, F. &Ogunleye, K. (2010). Real Exchange Rate and Foreign Direct investment in Sub-Saharan Africa: Some Empirical Results:Economia Mexicana NUEVA EPOCA, Vol. XXI, num. 1, primer semester de 2012: 175-202.
17. Onyeiwu, S., and Shrestha, H. (2004). Determinants of foreign direct investment in Africa. Journal of Developing Societies, 20: 89-106.
18. Saibu M. & Akinbobola T. (2014). ``Globalization, Foreign Direct Investment and Economic Growth in Sub Saharan Africa``. Journal of Economics and International Finance, 6(3): 62-68.
19. Sichei, M.M., and Kiyondo, G. (2012). Determinants of foreign direct investment in Africa: A panel data Analysis. Global Journal of Management and Business Research. 12(18): 85-96.
20. The PRS Group, International Country Risk Guide Composite Dataset
21. UNECA (2009) the Governance Report, UNECA. Addis Ababa, Ethiopia
22. UNCTAD (2006), World Investment Report 2007: the Shift Towards Services, UNCTAD, Geneva.
23. UNCTAD (2018): Handbook of Statistics, available on-line at (http://www.unctad.org)
24. UNCTAD (2018); World investment Report 2018 published by the United Nations on

TradeandInvestmentavailableatunctad.orgDATA%20on%20FDI%20 BRICS%2 01.htm.

25. United Nations Development Programme (UNDP), Human Development Index, available online at: (http://hdr.undp.org/en/composite/HDI
26. World Bank (2018). World Development Indicators. Washington D.C available online at http://data.worldbank.org/data-catalog/world-developmentindicators).
27. Worldwide Governance Indicators (WGI), available online at: (http://info.worldbank.org/ governance/wgi/index.aspx#home)
28. WTO membership data is from the World Trade Organisation (WTO), available online at: (https://www.wto.org/english /thewto_e/whatis_e/tif_e/org6_e.htm.

The Effect of Macroeconomic Factors and Political Events on the Performance of Nairobi Securities Exchange in Kenya

Dominic Ntabo Amoro, (PhD Student)
University of Nairobi, School of Economics, Kenya

Doi: 10.19044/elp.v6no2a3 URL:http://dx.doi.org/10.19044/elp.v6no2a3

Abstract

Stock market plays a significant positive role in the development of the capital market. Political events and changes in macroeconomic variables have been suspected to have an effect on the trading volume and stock return. Thus, this paper focuses on analyzing how macroeconomic factors and political events affect the performance of NSE in Kenya covering the period from January 2000 to February 2019. This was performed using inflation, exchange rate, money supply, 91-Day Treasury bill, and political events represented using dummy variables. The study uses secondary data, and the sources of the data include Capital Markets Authority quarterly bulletins and the Central Bank of Kenya statistics.

ARDL Error Correction model was used to estimate the extent to which macroeconomic factors and political events affect the performance of NSE in Kenya. This is because some of the variables are stationary and others are non-stationary. The results show that exchange rate, money supply, 91-Day Treasury bill, and political events were statistically significant except for inflation which is not statistically significant.

Therefore, a joint effort from individuals, stakeholders, economists, investors, and government is required to secure the effectiveness of the financial market in Kenya since financial markets are dynamic. They are also affected by various macroeconomic factors and some political instability incidents over the recent past like the 2007/2008 post-election violence. The result of the study may encourage and motivate the investors and policy makers both domestically and internationally to make vital strategic decisions.

Keywords: Nairobi Securities Exchange (NSE), Macroeconomic factors, political events, Kenya

Introduction

Stock markets are economic institutions which enhance the efficiency in capital formation and allocation (Olweny & Kimani, 2011). The stock market acts as a barometer in an economy in that it provides vital information on the future of the economy as it reflects how an economy performs (Srivastava, 2010). Both developing and developed countries have formed stock exchange markets to help in raising long term capital for firms that are allowed to subscribe to shares and stocks. It therefore assists in channeling funds from savings to investments (Mohammad, Hussain & Ali, 2009). Volatilities in macroeconomic factors in an economy cause firms or market participants to increase or decrease trading activities. Stock market is therefore important as it acts as a mediator between borrowers and savers. In addition, it is through stock market operations that both borrowers and lenders preferences are harmonised.

The performance of stock market reflects on an institutional framework as well as political environment, and it is influenced by the nature of current economic situation which is reflected by variations in macroeconomic variables like Treasury bill, money supply, inflation rate, and exchange rate in the economy (Wawire, Kirui & Onono, 2014). Stock market's correlation with the domestic and global stability of a country is strong. However, the unsound financial standings and national and global uncertainty have a significant effect on the stock market exchange performance in a country (Khan, Saif & Rehman, 2013).

Kenya is an emerging economy and therefore its economic performance is often pegged on a number of parameters, which include but not limited to: the performance of the stock markets, foreign direct investment, inflation rates, and interest rates. These parameters are affected majorly by the political stability/instability, which is equally affected by the electoral process in the country as most electoral processes and outcomes in developing countries are marred with a lot of uncertainties which affect investors' attitudes (Wawire et al., 2014).

Political events play a vital role in explaining stock market performance variations and the degree of uncertainty in the stock market (Tzachi, 2003). For instance, during election periods, politicians soothe investors and firms to fund their political affiliations (Worthington, 2006). Therefore, variations in prices in the stock market reflect the electoral prospects of parties competing (Bechtel & Fuss, 2006). Market participants expect positive stock market performance following a new regime in office. Market participants and scholars are still analyzing the effect of political change in the stock market whether or not it has an effect on the stock market performance (Chuang & Wang, 2009).

Political events may affect stock price either positively or negatively depending on the intensity of the event (Malik, Hussain & Ahmed, 2009). Major political events that we expect to affect the behaviour of investors both local and foreign include: the general elections 2002, 2007 and 2013, the post-election violence in the first quarter of 2008 and referenda like the one of 2005 and 2010 as well as Nubian-Luo 2001 crisis in Kibera. However, the political economy of a country can result to a significant influence on consumption by individuals and income distribution, hence affecting the activities in the stock market (Menge, Mwangi & Kimani, 2014).

Financial markets consist of money markets and capital markets. Financial markets facilitate trading, hedging, diversification, and pooling of risks (Levine, 1997). However, the role of financial markets in developing countries has been constrained by the fact that majority of them are in their earlier stages of development. These developing markets have a low number of listed companies and low capitalization among market participants (Yartey & Adjasi, 2007). The financial sector comprises of commercial banks, investment banks, insurance, microfinance banks, non-bank financial institutions, and securities companies. Hence, the banking sector play an important role in financial intermediation.

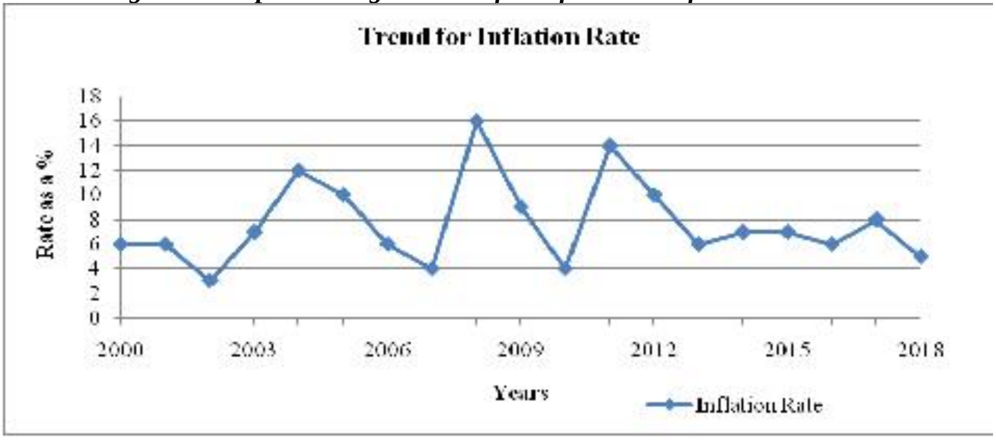
Trend Analysis of some Economic Variables

Figure 1. A graph showing the trend for NSE 20-share index from 2000 to 2018

Source: Researcher’s analysis based on data from CMA quarterly bulletin

From Figure 1, the NSE 20-share index declined from the year 2000 until the election year 2002 after which it showed an upward trend until 2006. From the year 2007 to December 2008, the index decreased. The index fell in 2009 as investors focused their portfolio on the bond market (Mwega, 2010). In the year 2011, there was a decline until the start of year 2012 when there was an increase again until the year 2014. After that, it declined to the year 2018.

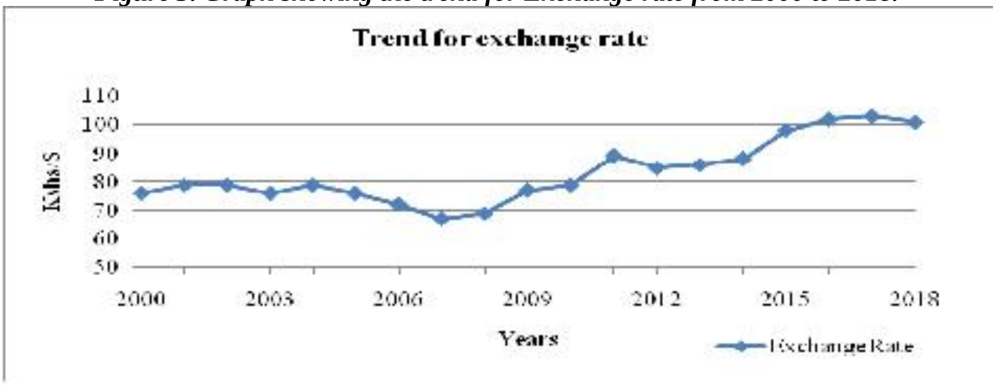
Figure 2. Graph showing the trend for Inflation rate from 2000 to 2018



Source: Researcher's analysis based on data from Central Bank monthly statistical bulletins.

From Figure 2, inflation rate has been fluctuating over the years. For instance it increased from 2001 to 2004, decreased to 2005, and increased tremendously from 2007 to 2008 because of the post-election violence and political crisis which have destabilized the economy (Koech & Rotich, 2013). From 2008, it declined until 2010 when inflation was under control by Central Bank of Kenya. In 2011, inflation was high as it was fuelled by drought in 2010 which led to high prices for stable food like maize (Were & Tiriongo, 2012). In the year 2012, it declined as it was controlled by Central Bank. It rose again from 2013 to 2014, declined in 2015 and rose slightly in 2016, and declined in 2017 and 2018.

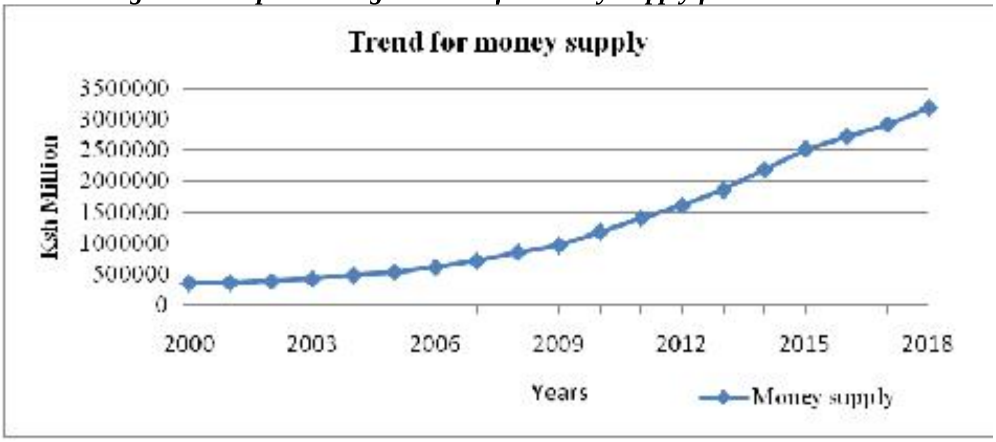
Figure 3. Graph showing the trend for Exchange rate from 2000 to 2018.



Source: Researcher's analysis based on data from Central Bank monthly statistical bulletins.

From Figure 3, the exchange rate has been almost stable between Kshs 70 to 80 per US$1 since the year 2000 to 2006. In 2007, it appreciated in value as it was below Kshs 70/$. From 2008, it started depreciating until 2011 rising till the year 2011. At this point, the Kenyan currency depreciated to almost Kshs 90 for one dollar and it later declined mid 80s after the intervention of monetary authorities who explored every avenue to tame the exchange rate volatility (Were & Tiriongo, 2012). From 2015 to 2017, it increased steadily making the currency to lose value but declined slightly in 2018.

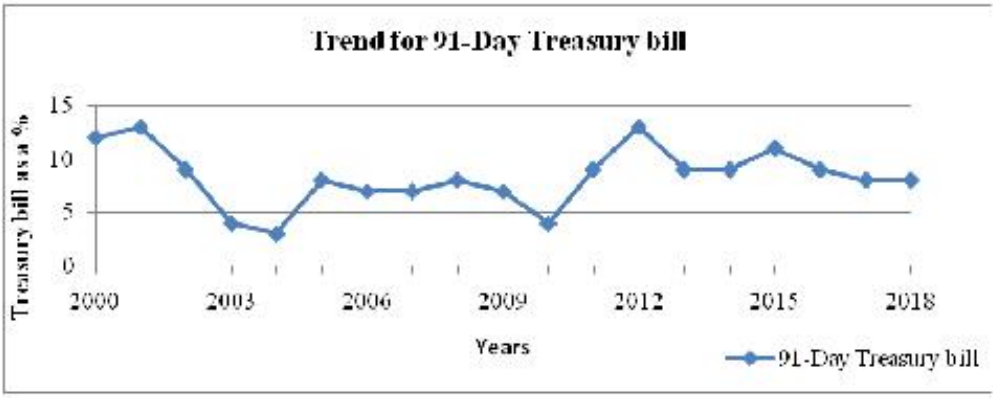
Figure 4. Graph showing the trend for Money Supply from 2000 - 2018



Source: Researcher's analysis based on data from Central Bank monthly statistical bulletins.

The trend for money supply in Figure 4 depicts continuous increase in money supply from the year 2000 to 2018, surpassing Ksh 2 trillion in 2014.

Figure 5. Graph showing the trend for 91-Day Treasury bill from 2000 to 2018



Source: Researcher's analysis based on data from Central Bank monthly statistical bulletins.

Figure 5 show that 91-Day Treasury bill rate has been fluctuating over the years. From 2000, the 91-Day Treasury bill declined from the year 2000 until 2004 where it increased for a short period. In 2005, the rate maintained between 5-10% until 2009. It declined again to 2010 before it increased tremendously in 2011. At this point, the rates were attractive to investors as the Kenyan government sold the Treasury bills at a higher rate to control money in circulation caused by too much remittance into the country as a result of currency depreciation. It later declined when the currency menace was under control.

Consequently, the above macroeconomic variables show that the variables and performance of stock market is close as global financial markets become liberalized. These variables are significant in determining stock market performance as they reflect the macroeconomic state which enables investors to make a decision to invest (Junkin, 2012).

I.
Problem Statement

Stock market contributes to the economic development of a country through boosting savings (Junkin, 2012). In addition, stock market creates an environment conducive for business transactions. Volatile market makes investors lose confidence and makes them afraid to invest in stock market. Consequently, this has a negative impact on the economy.

Many studies that have been done are based on developed markets evaluating stock returns, volatility, and macroeconomic variables (Alshogeathri, 2011). Thus, technocrats would wish to find out the variables they need to keep check in ensuring a conducive environment is created for investment in stock markets. Therefore, an in-depth relationship need be established between the macroeconomic variables and political events on the performance of stock market.

Various political events are known to significantly influence stock market. Some researchers have identified elections as the only political event. However, in this study, we explored more political events in Kenya which is a major variable in determining stock market performance. This study gives a different dimension on how the political event is measured to provide empirical evidence on its effect on stock market performance. Since political events is an influential factor in asset pricing, investors and researchers have developed keen interest in understanding its actual impact to enable enact policy that can favour the stock market so that they do not affect its performance.

Various studies show that the effect of macroeconomic variables on returns is present but is not significant. Therefore, this study will try to look into the significance of each macroeconomic variable. There is no general agreement on the effect of macroeconomic factors on stock market performance. For instance, Garcia and Liu (1999) established that macroeconomic volatility does not affect performance of stock market. Maku and Atanda in 2010 studied Nigeria Stock Exchange and established that macroeconomic factors affect stock market performance. Therefore, since elections and other political uncertainties do matter for the stock markets, politics can shape economic outcomes, affect asset prices, and change financial risk. This study will therefore explore extensively the effect of political instabilities and macroeconomic variables on stock market and on the general performance of the economy.

This study therefore sought to respond to the following questions;

- What is the effect of political events on the performance of NSE?
- What is the impact of selected macroeconomic factors on NSE performance?

Objective of the Study

The study's objective is to determine the effects of political events and macroeconomic factors on the performance of NSE in Kenya.

Literature Review

Nyang'oro (2013), using a case of Nairobi Securities Exchange, investigated foreign portfolio flows and stock market performance in Kenya. He argued that uncertainty in the market can be created by a volatile market and a significant increase in changes in exchange rate, whereas high foreign Treasury bill rate lessens the risk levels in foreign markets by making them more attractive than before. Therefore, he concludes that these variables have a negative correlation to return. Global financial market volatility can as well affect the realization of benefits from capital flows. Additionally, the international exchange rate volatility may lead to large and unfavourable swings in capital flows.

A study carried out by Robbani and Anantharaman in 2002 on the influence of political events on some stock market indices found out that political events have long-term effect on stock prices. The sample was selected from Pakistan, Sri Lanka, Indonesia, and India because political uncertainties were common in these countries. Daily data for four years was collected. Political events were considered as independent variable and is represented by a dummy variable regression coefficient. The t-test results show that political events have long term effect on the share prices.

A study was carried out by Nguthi (2013) to establish the effect of political news on companies listed at the NSE on stock market returns in Kenya during the March 2013 general elections. The study comprised of 60 trading days before and 60 trading days after the day of the election. The study sampled 19 counters and found out that 17 out of the 19 abnormal returns were not statistically significant employed market model to estimate expected returns. The study found that stock prices react to political news. Stock prices recorded increase in prices before the event date and after signifying investor confidence in the incoming government. The findings implicated that investors should take precautions when purchasing stocks during periods of political uncertainty.

A similar study was done by Menge et al. (2014) where they were investigating the effects of elections on stock market returns. They used data from NSE on 56 companies that covered the period before and after elections of December 2002, December 2007, and March 2013. The study findings indicated that after elections, returns were higher as compared to before elections. They recommended that investors should buy stocks after elections and sell them before elections when returns are high. Also, government should try to maintain stability after elections to avoid stock return drops.

Adam and Tweneboah (2008) used Vector Error Correlation model (VECM) and Cointegration for data of 17 years i.e. from 1991 to 2007, but on quarterly basis, to examine the impact of macroeconomic variables on stock prices in Ghana. They were examining long-run and short-run relationships on stock prices in Ghana. The results indicated a long-run relationship between macroeconomic variables and stock prices. The VECM showed that inflation and interest rate lagged have significant influence on stock market.

Attari and Safdar (2013) conducted a similar study in Pakistan and applied Exponential GARCH in examining stock market prices and macroeconomic variables. They used monthly data from December 1991 to August 2012 to explore time series analysis. They also used ADF and ARCH to check for stationarity and homoscedasticity. The result showed that macroeconomic variables have a credible influence on the prices of stocks. Furthermore, they also concluded that stock market in Pakistan was highly volatile.

A similar analysis had been done earlier in Nigeria by Maku and Atanda in 2010 using Augmented Dickey Fuller (ADF) and unit root test which examined the long-run macroeconomic determinants of stock market performance in Nigeria between the periods of 1984 and 2007. The results showed that Nigeria Stock Exchange is more responsive to changes in exchange rate, real output, inflation rate, and money supply. The variables were found to have a significant impact on Nigerian capital market performance in the long-run. They, therefore, recommended that investors should pay attention to the above factors rather than Treasury bill rate in their investment decision.

A monthly data from March 2008 to March 2012 summing up to 48 observations was used by Oriwo and Ochieng' (2012) in investigating the impact of macroeconomic variables on NSE All Share Index (NASI) and further examining whether the variations in macroeconomic variables can be used to predict future NASI. They took three variables into account i.e. commercial banks lending interest rates, 91-day Treasury bill interest rate, and inflation rates. They performed regressions and decided to drop lending interest rates as it was correlated with 91-Day Treasury bill interest rate. They found that a negative relationship exist between the 91-Day Treasury bill interest rate and NASI. Furthermore, they concluded that changes in macroeconomic variables have an effect on stock market performance which as well has a significant influence on foreign investor's decisions.

Methodology and Estimation

Theoretical Framework

NSE performance can be computed from the regression coefficient between stock returns and macroeconomic factors (Adler & Dumas, 1983). To establish the effect of macroeconomic factors in stock markets, the Arbitrage Pricing Theory (APT) is used. This is because APT enables specification of returns as a linear function of various factors and it is less restrictive compared to CAPM.

In APT, the return of a portfolio consists of the weighted average of expected returns, betas multiplied by the factors and the unsystematic risk.

$$AR_P = \sum_{i=1}^{k} w_i ER_i + (\sum_{i=1}^{k} w_i \hat{\text{a}}_i) H_i + \sum_{i=1}^{k} w_i q_i \quad (1)$$

If a portfolio is well diversified, there is no unsystematic risk for individual security because this risk has already been diversified away.

In APT model, changes in macroeconomic factors are included as they affect performance in NSE. Thus, stock return (Rs) can be expressed as a linear factor model as shown by the equation below;

$$Rs = \ddot{\text{a}}_0 + \sum_{j=1}^{k} \ddot{\text{a}}_i H_i + \varepsilon i \quad (2)$$

Where Rs is the stock return, δ_i's measures the sensitivities to the factors, H_i are factors that affect NSE, and ε_i is the disturbance term.

Empirical Model

Multivariate regression was employed in this study. It combines all the independent variables and detects the effect of those variables on our dependent variable stock returns (in our case NSE 20 share index has been used to represent performance in NSE):

$$Rs = f(INF, EXC, MS, TB, DPOL) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Where INF = inflation rates; EXC = exchange rates; TB = 91-Day Treasury bill; MS = money supply; $DPOL$ = Dummy indicating major political events.

We shall extend the model in equation 3 above to estimate the macroeconomic volatility and political factors on stock market performance as follows;

$$Rs = \beta_0 + \beta_1 INF + \beta_2 EXC + \beta_3 lnMS + \beta_4 TB + \beta_5 DPOL + \varepsilon \dots\dots\dots\dots\dots\dots (4)$$

Results

Subsequenlty, we have used secondary time series data in realizing the objectives of this study. The data has been obtained from central bank monthly bulletin and capital markets authority quarterly bulletin. We have also considered monthly data from January 2000 to February 2019, making it a total of 230 observations.

Table 1. Descriptive Statistics

Stats	NSE	INF	EXC	MS	TB	DPOL
N	230	230	230	230	230	230
Mean	3537.824	7.628	83.3696	1345909	8.2237	0.2696
Std. Dev.	1201.961	4.4037	11.154	956642.4	3.5459	0.4447
Min	1043.4	0.2	61.899	342918	0.83	0.000
Max	5774.3	19.72	105.28	3344283	22.49	1.000
Skewness	-0.3095	1.1765	0.5258	0.6558	0.7594	1.0386
Kurtosis	2.2308	3.6117	2.2600	2.00725	5.5295	2.0787

Source: *Author's Computation based on various Economic Surveys published by KNBS and Central Bank bulletins*

The total number of observations considered in this study was 230. NSE 20 share index deviates from its mean (3537.824) by 1201.961, but it ranges between 1043.4 and 5774.3. Inflation deviates from its mean (7.628) by 4.4037, but it ranges between 0.2 and 19.72. Exchange rate deviates from its mean (83.3696) by 11.154, but it ranges between 61.889 and 105.28. In general, the standard deviation for each variable indicates the value by which a given variable deviates from its mean. Standard deviation for the dummy variable for major political events has no meaning in this case since the dummy is either 0 or 1.

Stock return is almost normally negatively skewed at -0.3095 and is highly peaked at 2.2308. Inflation is positively skewed and almost flat i.e. 1.1765, and this applies to exchange rate. The amount of money in circulation M2 and 91 day treasury bill are highly peaked and positively skewed. All the independent variables are positively skewed but 91 day treasury bill seems to be normally skewed.

Stationarity Test

Unit root tests are used to detect non stationarity in all the variables. If variables are non- stationary, there is a tendency of the estimates to change over time. This characteristic leads to spurious estimates. Therefore, if variables are found to be non-stationary, successful differencing is applied until the bias is eliminated. The null hypothesis in this case is that the variable under consideration is non-stationary.

Table 2. Test for Stationarity

Variable	***Test statistic***	***Critical value at 1%***	***Critical value at 5%***	***Critical valueat 10%***
Stock return	*-3.344*	*-3.997*	*-3.433*	*-3.133*
INF	*-6.770*	*-3.997*	*-3.433*	*-3.133*
EXC	*-3.582*	*-3.997*	*-3.433*	*-3.133*
lnMS	*-2.553*	*-3.997*	*-3.433*	*-3.133*
TB	*-6.906*	*-3.997*	*-3.433*	*-3.133*

From Table 2, money supply and stock return are non-stationary in their native forms at 5% significance level. This is exception of inflation and 91-Day Treasury bill that are stationary at 1%, 5%, and 10% significance levels. In addition, exchange rate is stationary at 5% and 10% significance levels.

Table 3. Results after first differencing

Variable	**Test statistic**	**Critical value at 1%**	**Critical value at 5%**	**Critical valueat 10%**
Dstock return	-12.703	-3.999	-3.433	-3.133
DlnMS	-13.848	-3.999	-3.433	*-3.133*

From Table 3, the non-stationary variables become stationary after first differencing. Stock return and money supply becomes stationary at 1%, 5%, and 10% significance level.

Correlation Matrix

Table 4. Correlation matrix using pearson product moment at 5%

Variables	NSE	INF	EXC	lnMS	TB	DPOL
NSE	1.0000					
INF	0.0555	1.0000				
EXC	0.0106	-0.0661	1.0000			
lnMS	0.5183	-0.0091	0.8011	1.0000		
TB	-0.1546	0.1254	0.2059	0.0894	1.0000	
DPOL	-0.0208	-0.1894	-0.0328	-0.0293	-0.0133	1.0000

From Table 5, we observe the relationship existing between various variables used by this study. There is a strong positive relationship between NSE 20 share index and money supply. Treasury bill shows that there exists a negative correlation with NSE 20 share index. Inflation and exchange rate show a positive relationship respectively with NSE 20 share index. Inflation has a negative association with exchange rate, money supply and political events, and a positive association with 91 Day Treasury bill. Exchange rate has a strong positive relationship with money supply and 91 Day Treasury bill. Dummy variable for political event has a negative relationship with exchange rate. Money supply shows a positive relationship with TB and a negative relationship with political event. Finally, Treasury bill shows a negative correlation with dummy for political event. However, there is no causality shown in the table.

Multicollinearity

To test for multicollinearity, the Variance Inflation Factors (VIF) was examined. For VIF test values greater than 10 and 1/VIF values less than 0.10, multicollinearity is deemed to be present (Nachtscheim et al., 2004). In the results below, multicollinearity is absent.

Table 5. Variance Inflation Factors

Variable	VIF	1/VIF
EXC	3.00	0.333759
dlnMS	2.86	0.349209
TB	1.09	0.919061
INF	1.07	0.930798
DPOL	1.04	0.961498
Mean VIF	1.81	

Diagnostic Tests

Testing for Serial Correlation

Breusch-Godfrey test was used in testing for serial correlation. The test involves a determination of lag length which was obtained by the Akaike's Information Criterion (AIC). The test results revealed that there is no autocorrelation since the p-value which is 0.0000 is less than 0.05. Thus we reject the null hypothesis that there is no autocorrelation.

Table 6. Breusch-Godfrey LM test for autocorrelation

Lags(p)	Chi2	Degrees of freedom	Prob> chi2
1	140.102	1	0.0000

H0: no serial correlation

Homoscedasticity

Using Breusch-Pagan test, results reveal that the variances of the random error terms are not constant across observations since the p-value is less than 0.05 implying that the error terms are homoscedastic leading to the rejection of the null hypothesis of constant variance. As a remedy to this bias, robust standard errors will be used.

Table 7. Breusch –Pagan test

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity
Ho: Constant variance
Variables: Fitted values of stock return
Chi2(1) = 2.49
Prob> chi2 = 0.0115

H_o: Homoscedasticity

Normality

The Skewness-Kurtosis tests for normality were applied in testing for normal distribution for every variable. The table below shows the test for normal distribution using skewness and kurtosis. The joint p-value for all the variables shows that we accept the null hypothesis that their distribution is the same. On the basis of skewness, we reject the null hypothesis that skewness of the distribution inflation and 91-day treasury bill is different from the skewness of the distribution. On the basis of kurtosis, all variables are platykurtic since they are less than 3.

Table 8. Skewness-Kurtosis tests

Variable	Pr (Skewness)	Pr (Kurtosis)	Chi2(2)	Prob>Chi2
Stock return	0.0532	0.0002	15.01	0.0006
INF	0.0000	0.0751	31.77	0.0000
EXC	0.0015	0.0005	18.13	0.0001
TB	0.0000	0.0000	29.12	0.0000
dlnMS	0.1333	0.0000	19.31	0.0001
DPOL	0.0000	0.0000	45.11	0.0000

Regression Results

Since there is stationary variables and non-stationary which become stationary after first differencing, we adopted ARDL Error Correction model.

Table 9. ARDL Error Correction Model regression results

Number of obs = 224
R-squared = 0.6224
Adj R-squared = 0.3981
Log likelihood = -1635.2065 **MSE = 366.4733**

D.Stock return	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ADJ						
Stock return						
L1	**-0.0789**	**0.0354**	**2.23**	**0.027**	**-0.148775**	**-0.00908**
LR						
dlnMS	**0.00229**	**0.00075**	**3.04**	**0.003**	**0.00080**	**0.00377**
EXC	**-0.00269**	**67.0479**	**-2.87**	**0.005**	**-324.43**	**-60.109**
INF	**0.07509**	**90.5362**	**-0.83**	**0.408**	**-253.55**	**103.36**
TB	**0.00291**	**161.14**	**-1.80**	**0.073**	**-608.44**	**26.819**
DPOL	**-0.00809**	**904.8**	**1.23**	**0.048**	**-666.65**	**2900.3**
SR						
Stock return						
LD.	**-0.22468**	**0.0568**	**-3.95**	**0.000**	**-0.33667**	**-0.11269**
L2D.	**-0.32976**	**0.0552**	**-5.96**	**0.000**	**-0.43872**	**-0.22079**
EXC						
D1.	**-0.46839**	**8.9833**	**-5.21**	**0.000**	**-64.546**	**-29.132**
_cons	**1.5224**	**608.00**	**2.50**	**0.013**	**323.94**	**2720.8**

From the above table, the linear regression model below can be deduced. The independent variables are exponentially calculated as the dependent variable is in log form.

Rs = 1.5224 + 0.07509INF – 0.00269EXC + 0.00229lnMS + 0.00291TB - 0.00809DPOL

Interpretation of the Results

The coefficient for inflation is positive but statistically insignificant since the p-value is more than 0.05 level (p = 0.408). Holding all other factors constant, the stock return will increase by 7.5% when inflation increases by 1%. The coefficient is positive which would indicate that the higher the inflation rate, the higher the stock returns which is contrary to what we would expect. These results thus contradicts other findings of other researchers such as the study of Nyang'oro (2013).

The coefficient of exchange rate is negative and statistically significant since the p-value is less than 0.05 (p=0.005). When all other factors are held constant, the stock return will decrease by 0.229% when exchange rate increases by 1%. When the currency depreciates in value, it reduces the performance of NSE as per our results. Our results is consistent with the outcome of other researchers like Osoro and Ogeto (2013) who concluded that currency depreciation reduces stock returns.

The coefficient of money supply and 91 Day Treasury bill is positive and is statistically significant with a p-value of 0.003 and 0.073 respectively. Increase in money supply in an economy implies high inflation. This improves the stock return as investors invest in stocks. High inflation increases cash inflow into a country. The study is in agreement with early studies like Ogiji (2013) and Patel (2012) but contradicts what Oriwo and Ochieng (2012) found. They stated that increase in 91 Day Treasury bill means that it becomes more attractive to invest in them as compared to investing on common shares at NSE and, as a result, there is a decline in the stock market activity leading to decreased performance.

The coefficient of the dummy variable politics shows that the stock return decreases by 0.00809 units when political uncertainties exist within a country. The coefficient of the dummy variable for political events is negative and statistically significant at 5% level of confidence (p-value=0.048). This conforms to the economic theory that political instability scares investors away from investing. Menge et al. (2014) found that during election periods, NSE performance rises before the election day but declines after the election day as the fear of the change in regime may affect the returns.

The results above indicate that regression did well in regard to the goodness of fit and also overall significance with an R^2 of 62.24%. This implies that 62.24% of the variation in the independent variable stock return has been explained by the explanatory variables. This leaves 37.76% unexplained by the model.

Conclusion

From the study, it has been found out that some of the macroeconomic factors have an effect on the performance of NSE as well as political occurrences in a country. In this situation, some causal relationships among variables was established for the data used from January 2000 to February 2019.

Information disclosure has an effect on how investors invest and which will in turn affect NSE performance. There may be an effect on the general performance of the financial sector if the stock market performs poorly. This may consequently affect the general economy.

From the findings above, it can be generalized that the government should be keen on frequent changes of various macroeconomic variables to be able to monitor the economic activities in an economy including capital market. The real market depends on all the variables discussed in this paper. Therefore, the study recommended that Central Bank should adopt better monetary policy measures to control the exchange rate and 91 Day Treasury bill because they are vital in determining stock market performance.

Performance of stock market is an indicator to the foreign investors on the stability of the stock market. It is therefore recommended that good measures should be put in place for example investor friendly policies to promote the stock market activities, thus resulting to better stock market performance. Capital Market Authority should also keep a closer check on how the stock market functions, create and boost investor confidence, and introduce new products into the stock market.

In developing the Kenyan stock market so that it remains competitive with world leading stock markets, the government needs to place emphasis on the removal of bottlenecks that may hinder the development of the NSE. This may include regulatory barriers which actually act as disincentives to investment in securities. In order to safeguard shareholders interests, the CMA should revise any sharp practices by market operators. For instance, the 5 percent tax that was to be imposed is a disincentive to investors.

Investor’s confidence is important in any market operations. Potential investors particularly may be reluctant to invest in securities when they cannot give credence especially when some firms fall and close down. Investor compensation fund need to be established to assure that only credible firms are licensed to operate. This may boost investor confidence such that investors can get compensated in case of a fall.

References:

1. Adler, M. and Dumas, B. (1983). International portfolio choice and corporation finance: A synthesis. *The Journal of Finance, 38*(3), 925-984.
2. Alshogeathri, M.A.M. (2011). Macroeconomic determinants of the stock market movements: empirical evidence from Saudi stock market. Retrieved from http:/krex.k-state.edu/dspace/handle/2097/11989
3. Attari, M.I. and Safdar, L. (2013). The relationship between macroeconomic volatility and the stock market volatility: Empirical evidence from Pakistan. *Pakistan Journal of Commerce and Social Sciences*, 7(2), 309-320.
4. Capital Markets Authority (various issues). *Quarterly Statistical Bulletin*, Nairobi: Author.
5. Central Bank of Kenya (various issues). *Monthly economic reviews*, Nairobi: Author.
6. Chuang, C.-C. and Wang, Y.-H. (2009). Developed stock market reaction to political change: A panel data analysis, Graduate Institute of Management Sciences, Tamkang University, Taiwan.
7. Fama, E. (1970). Efficient capital markets: a review of theory and empirical work. *Journal of Finance*, 25, 383-427.
8. Gujarati, D.N. (2004). *Basic Econometrics*. Fourth edition, McGraw-Hill, Book companies, New York.
9. Garcia, V. F. and Liu, L. (1999). Macroeconomic determinants of stock. *Journal of Applied Economics, 2*(1), 29-59.
10. Junkin, K. (2012). Macroeconomic determinants of stock market behaviour in South Africa. Rhodes University. Retrived from http://eprints.ru.ac.za/3658/
11. Kemboi, J.K. and Tarus, D.K. (2012). Macroeconomic determinants of stock market development in emerging markets: Evidence from Kenya. *Research Journal of Finance and Accounting, 3(5),* 57-68
12. Khan, M., Saif, N. and Rehman, S. (2013). Stock market reaction to political events (Evidence from Pakistan). *Journal of Economics and Sustainable Development*, 2(1), 165-174
13. Koech,O.K. and Rotich, G. (2013). The effect of the 2008 global financial crisis on the performance of stock indices at the Nairobi Securities Exchange. *International Journal of Innovative Research and Development, 2(5),* 1099-1118
14. Levine, R. (1997). Financial development and economic growth. *Journal of Economic Literature, 35*(2), 688-726.
15. Maku, O.E. and Atanda, A.A. (2010). Determinants of stock market performance in Nigeria: Long-run analysis. *Journal of Management and Organisational Behaviour*, 1(3)

16. Malik, S., Hussain, S. and Ahmed, S. (2009). Impact of political event on trading volume and stock return: The case of KSE. *International Review of Business Research papers*, 5(4), 354-364.
17. Menge, R.N., Mwangi, M. and Kimani, J.G. (2014). Effects of elections on stock market returns at the NSE. *Prime Journal of Social Science,* 3(6), 26-34.
18. Mohammad, D.S., Hussain, A. and Ali, A. (2009). Impact of macroeconomic variables on stock prices: Empirical evidence in case of Karachi Stock Exchange. European Journal of Scientific , 38(1), 96-103
19. Mwega, F.M. (2010). Global financial crisis discussion series paper: Kenya phase 2. Overseas Development Institute London, 17(2), 6-8
20. Nachtscheim, C.J., Neter, J. and Kutner, M.H. (2004). *Applied Linear Regression Models*.4th edition, McGraw-Hill Irwin, Chicago.
21. Nguthi, P.N. (2013). The effect of political news on stock market returns in Kenya: The case of March 2013 general elections. Masters research paper, University of Nairobi.
22. Nyang`oro, O. (2013). Foreign portfolio flows and stock market performance in Kenya: Case of Nairobi Securities Exchange. A presentation made at the CSAE conference on Economic Development in Africa.
23. Olweny, T. and Kimani, D. (2011). Stock market performance and economic growth: Empirical evidence from Kenya using causality test approach. *Advances in Economics and Applied Economics*, 1(3), 153-196.
24. Oriwo, A.E. and Ochieng', D.E. (2012). The relationship between macroeconomic variables and stock market performance in Kenya. *DBA Africa Management Review*, 3(1), 38-49.
25. Osoro, C. and Ogeto, W. (2013). Macroeconomic fluctuations effects on the financial performance of listed manufacturing firms in Kenya. *The International Journal of Sciences*, 21(1), 26-34.
26. Patel, S. (2012). The effect of macroeconomic determinants on the performance of the Indian stock market. *NMIMS Management Review,* 22, 117-127.
27. Robbani and Anantharaman (2002). An econometric analysis of stock market reaction to political events in emerging markets, second annual ABIT Conference, May 2-4, 2002, Pittsburgh, Pennsylvania
28. Srivastava, A. (2010). Relevance of macroeconomic factors for the Indian stock market. 37(3).
29. Wawire, N., Kirui, E. and Onono, P. (2014). Macroeconomic variables, volatility and stock market returns: A case of Nairobi

Securities Exchange, Kenya. *International Journal of Economics and Finance*, 6(8), 214-228

30. Were, M. and Tiriongo, S. (2012). Central Bank's response to economic crises from a developing African economy perspective: Lessons from Kenya's experience.
31. Yartey, C. A. and Adjasi, C. K. (2007). *Stock market development in sub-Saharan Africa: critical issues and challenges* (Working paper No. 7). International Monetary Fund.

Influence of Participative and Achievement Oriented Leadership Styles on Employee Job Satisfaction in Commercial Banks in Kenya

Davidson Mghanga Mwaisaka
Prof. George K'Aol
Dr. Caren Ouma
Chandaria School of Business, United States International University - Africa, Kenya

Doi: 10.19044/elp.v6no2a4 URL:http://dx.doi.org/10.19044/elp.v6no2a4

Abstract

Purpose*:* The purpose of the study was to examine the influence of participative and achievement-oriented leadership styles on employee job satisfaction in commercial banks in Kenya.

Methodology*:* The study adopted positivism research philosophy to guide the study and limited itself to descriptive correlational research design to analyze and provide responses to the research questions. The research design was preferred because it allows description and comparison of characteristics of populations based on data collected from samples through questionnaires. The target population of the study was 15,030 employees in all the 43 commercial banks licensed to operate in Kenya as of June 2018. Using stratified sampling technique, the study drew a sample size of 386 employees reporting to middle level managers. Data was collected by means of a questionnaire and analyzed using descriptive and inferential statistics, which included factor analysis, correlational analysis, chi-square, one-way analysis of variance (ANOVA), and regression analysis using Statistical Package for Social Sciences (SPSS) version 20 and Windows' Microsoft excel programs.

Results*:* Using multiple linear regression analysis, the results of the study confirmed that participative leadership style positively and significantly predicted employee job satisfaction, $R^2 = .500$, $F(1, 364) = 181.811$, $p < .05$; $\beta = .673$, $p < .05$. The study findings of multiple linear regression analysis also revealed that achievement-oriented leadership style positively and significantly predicted employee job satisfaction, $R^2 = .507$, $F(2, 366) = 190.086$, $p < .05$; $\beta = .639$, $p < .05$. From the results of the regression analysis after moderation, it was revealed that environmental contingency factors significantly moderated the relationship between path-goal leadership style

and employee job satisfaction, R^2=0.090, F(5,364) = 35.04, $p < .05$; β= 0.229, p<.05.
Unique contribution to theory, practice and policy: The study provides a unique contribution to the theory and practice of path-goal leadership styles in a new perspective in terms how path-goal leadership styles associated with the constructs of participative leadership and achievement oriented leadership styles influence employee job satisfaction in commercial banks of Kenya. Suggestions for future research were made, which included research on the influence of path-goal leadership styles on employee job satisfaction in insurance companies, investment companies, and micro-finance institutions.

Keywords: Participative Leadership, Achievement-Oriented, Path-Goal Leadership Styles, Employee Job Satisfaction.

1.0 Background

This study adopted path-goal leadership theory. Path-goal approach to leadership is derived from Vroom's (1964) expectancy theory. According to Alanazi (2013), the path-goal theory makes a clarification on the level of exercising of leadership under differing conditions by a given organization leader. The theory stipulates that there are four leadership styles that organization leadership may adopt. These leadership styles include participative leadership style, supportive leadership style, directive leadership style and achievement-oriented leadership style. Yukl (2013) suggested that the path-goal theory has heavily borrowed from the expectancy theory of motivation especially on the motivational factors that promote the employees in an organization to exert effort in achieving the goals of assigned tasks in order to achieve the targeted outcomes. Yukl further argued that the behaviours of leadership in an organization have a critical role in enhancing motivation of employees to achieve organizational goals. The critical factor for employee job satisfaction is thus dependent on the capability of the leadership to inspire the workers to positively participate in the assigned task.

Mohammad, Nazari and Mehrdad (2013) attempted to establish the relationship between the leadership styles in use in organizations and the job satisfaction of employees in Abuja Nigeria. The study correlated application of path-goal theory by organizational leadership and the levels of job satisfaction. A positive relationship was established highlighting the important role played by leadership style in enhancing employee job satisfaction. Also, Akhigbe, Finelady and Felix (2014) conducted a study on the effects of achievement-oriented leadership style on job satisfaction of selected commercial banks in River State in Nigeria. From the results of the latter study, it was confirmed that achievement oriented leadership style positively and significantly enhance employee job satisfaction. This again highlights the fact that leadership style in application in an organization is important in determining job satisfaction.

Otieno, Waiganjo and Njeru (2015) applied path-goal theory to study the relationship between labour relations practices and employee performance in Kenya's horticultural sector. The findings indicated that organizations that had adopted employee engagement strategy had improved their performance. Jeruto (2015) stated that through the path-goal approach, various parameters of job satisfaction amongst employees are established. This is through belief in acceptance of the specified organization goals to be achieved, willingness to put effort to achieve the stated goals and the desire to be part of the team that achieves organization goals. Thus, a significant relationship exists within the organizational leadership in attainment of employee job satisfaction.

1.1 Problem Statement

In Kenya, the banking sector is facing a number of performance related challenges characterized by low levels of employee job satisfaction, which is evidenced by high rates of staff turnover. According to the Kenya Bankers Association (2018), the sector has been operating within a tough regulatory framework, which has had negative impact on banks' profitability, endangered job security for employees, jeopardized employee performance, and threatened job satisfaction. The capping of interest rate at 4% by the 2016 Banking Amendments Act in Kenya led to increased competition in the market. This has witnessed more commercial banks turning to technologies such as mobile banking to lower operating costs and enhance the quality and efficiency of their operations. Adoption of such technologies has resulted in redundancy of more staffs, which affects the levels of job satisfaction of the remaining workforce (Kenya Bankers Association, 2018). Despite all the remedies put in place, Kenyan commercial banks still encounter many challenges as a result of low level employee job satisfaction. A number of studies (Anitha, 2014; Famakin & Abisuga, 2016; Kagwiria, 2016) have been conducted to determine the influence of leadership styles on bank innovation and performance, but a few studies (Nyaberi & Kiriago, 2013) examined how innovation in banks affect employee job satisfaction.

A number of local scholars have studied the association of path-goal leadership style and employee job satisfaction (Lumbasi, K'Aol & Ouma, 2016; Otieno, Waiganjo & Njeru, 2015; Gitoho, 2015; Nyaberi & Kiriago, 2013). However, a few scholars have related the impact of path-goal leadership to commercial banks creating a knowledge gap in the sector. As a result of scarcity of local empirical studies, Kagwiria (2016) recommended the need for assessment of viability of use of path-goal leadership style as a solution to organization leadership crises like commercial banks. Apparently, knowledge gaps exist in relating the two attributes. This study sought to bridge the knowledge gap.

1.2 Research Purpose

This study examined the influence of participative and achievement leadership styles on employee job satisfaction in commercial banks in Kenya.

1.3 Research Question

The study was guided by the subsequent question:

1.3.1 How does participative leadership style influence employee job satisfaction in commercial banks in Kenya?

1.3.2 How does achievement-oriented leadership style influence employee job satisfaction in commercial banks in Kenya?

1.3.3 How do environmental contingency factors moderate the relationship between path-goal leadership styles and employee job satisfaction in commercial banks in Kenya?

1.4 Research Hypotheses

The study was guided by the subsequent null hypotheses:

H_{01}: There is no significant influence of participative leadership style on employee job satisfaction in commercial banks in Kenya.

H_{02}: There is no significant influence of achievement-oriented leadership style on employee job satisfaction in commercial banks in Kenya.

H_{03}: Environmental contingency factors do not have significant moderating influence on the relationship between path-goal leadership styles and employee job satisfaction.

2.0 Synopsis Literature Review

2.1 Theoretical Review

This study adopted path-goal leadership theory as a guiding theory. House and Mitchell (1974) stated that leader behavior refers to the expected code of conduct exhibited by people in power. The leaders provide the expected performance levels, and acceptable means through which those following the leader should use to attain the specified goals. There are four varieties of leadership behaviour and styles postulated: Directive, Supportive, Participative, and Achievement-oriented. Gustafsson and Hornay (2014) state that path-goal leadership styles are the leadership styles pathways model provides. A leader characterized as directive will give his followers detailed instructions on the tasks, the anticipated level of performance, time frames and stringent rules and regulations to observe.

Northouse (2013) argued that environmental factors within the path-goal theory context are instrumental in determining the suitable leadership style to be applied if the best productivity is to be attained from the subordinates. In this case, the environment is seen as constituting external factors beyond the employee's control of the structure of the task system of authority, and work group. House (1971) stated that a leader's behavior will motivate performance amongst employees in relation to the extent in which it facilitates them to cope with relevant environmental uncertainties, threats and frustrations.

2.2 Conceptual Framework

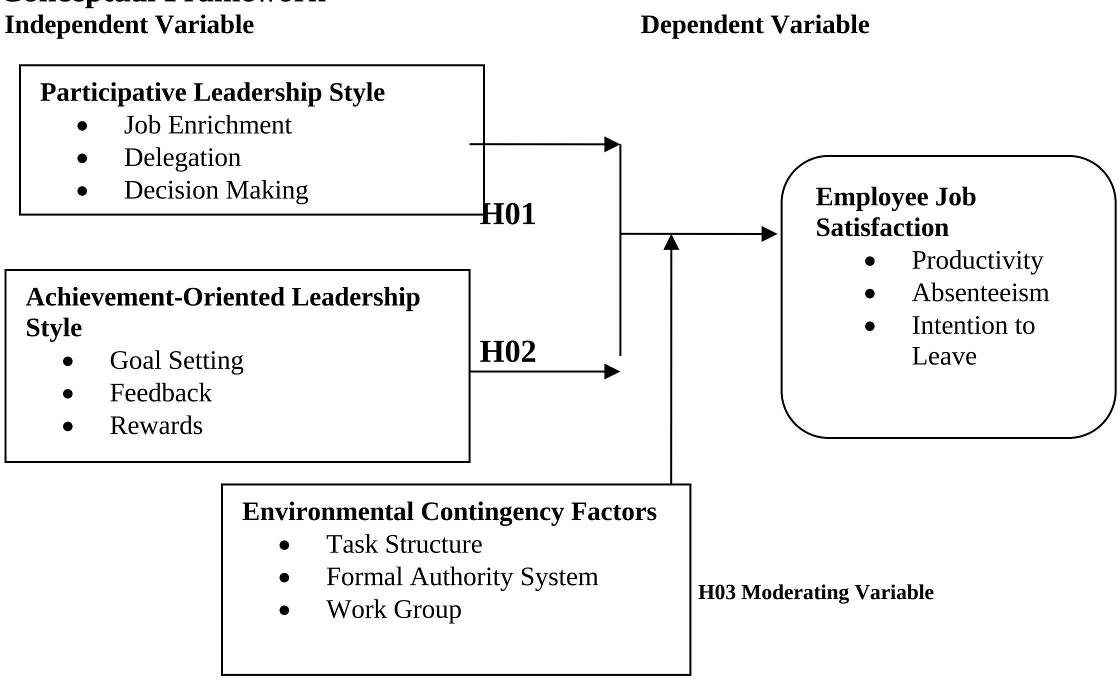


Figure 1: Conceptual Framework

A conceptual framework is a tool for analysis that provides the context of how different variables under study interact (Abend, 2013). The conceptual framework for this study comprises of the independent variables as participative and achievement oriented leadership styles. The dependent variable is job satisfaction amongst employees and the moderating variable is environmental contingency factors. The conceptual framework is shown in Figure 1.

2.3 Empirical Literature

2.3.1 Participative Leadership

A leadership that can be said to be effective will deliberately seek satisfaction of employees at work, and defines what they expect of each employee if the organization is to be successful (Bolman & Deal, 2013). According to Khuong and Dang (2015), employee reporting high levels of motivation believed they are valued at work and that their work group depend on their performance to attain results. The elements of participative leadership style discussed in this section are; job enrichment, delegation of authority, decision making, creativity and intrinsic motivation.

Participative leadership provides intrinsic motivation to employees by enriching the employees experience at work. The employee is given a higher level of independence at work, variety of choices to accomplish his assignments and develops a sense of empowerment. The employee feels important in an organization when they participate in decision making processes of the organization. This enhances their connection to the organization and inspires them to reach top performance (Yukl, 2013). Yukl further states that participative decision is highly valuable for the organization. It benefits the management, the employees and the organization. Employee's motivation at work is enhanced, innovativeness in the organization increases, and work life balance of the employees is enhanced.

Participative leadership style highly regards delegation of duties and responsibilities. It also involves people in decision making (Dubrin, 2017). Employees feel more satisfied in the work place if they are involved in making key decisions that affect them. When employees feel recognized by the management, their pride and ownership of organizational processes grow (Harter, Schmidt & Hayes, 2012).

Decisions made in organizations can greatly affect the stability of the organization and the security of employees (Shafritz, 2010). Involving employees in decision making ensures that their relationship with the organizations leadership greatly improves (Robbins, 2014). Leaders grow more respected, and the employees are more embracing of the leadership's direction. This kind of leadership enhances trust between the management and employees. In the contrary, leaders who make decisions by themselves risk losing the support of their employees (Jit, 2013).

2.3.2 Achievement-Oriented Leadership

Achievement-oriented leader gives the employees challenging performance targets. The leader seeks continuous performance from their employees and expects high standard performance. This leader will demonstrate great confidence on the employees (Northouse, 2013). Achievement-Oriented leadership is appropriate in circumstances where employees are not highly resistant to autocracy, have an outward focus, and are easy followers of their leadership's direction. It also works when the task is simple and clear, there is high respect for authority, and coworkers commitment to work is high (Lussier & Achua, 2010). The elements of achievement-oriented leadership styles discussed in this section are; employee confidence, strategy execution, goal setting and organization commitment. Moorhead and Griffin (2012) argued that when leaders give subordinates difficult tasks, the employees feel the leaders have confidence in their capabilities. When the employees achieve the duties and are rewarded, it enhances their confidence in the organization (Ratyan & Mohd, 2013). When goal setting are done right, it enhances employee satisfaction at work (Ashraf *et al.*, 2012). Negron (2008) states that the achievement-oriented leadership style is best suited when the tasks are unclear and where employees need their motivation to be boosted for performance. Research by Titko and Lace (2015) indicated that high achievement-oriented leaders impacted employee's satisfaction of the job, for they are motivated to perform better.

Taris (2016) reports on analysis of relationship between commitment to the organization and achievement-oriented leadership style. From the findings, it is imperative that leaders exhibiting achievement-orientation style connects well with organizations oriented on strategic management. Aziri (2016) studied relationship between motivation of employees in universities and their attachment to their jobs in Nigeria. Further, the findings showed that achievement oriented influenced employee motivation and efficiency of an organization. The recommendation was that heads of departments should have their capacity build on achievement orientation.

Achievement-oriented leaders not only set challenging performance goals for their employees but also for themselves. They also take responsibility for achievement of organizational wide objectives. These leaders are consistent in pursuing achievement of the set performance objectives. The leaders take calculated risks, with the organizational goals in mind. They actively gather information from employees and provide consistent feedback (Suradi, 2017).

Employees with high perceived organizational support feel a heavy responsibility to attain organizational objectives. They have positive attitudes towards their jobs (Robbins, 2014). Suradi (2017) examined and analyzed the association between leadership style, job satisfaction and organization culture among lecturers in Russia. The research object was lecturer in financial education and training agency, Ministry of Finance. The method of this research was explanatory research design. Besides, sampling technique used in this research was saturated sample. On the other hand, statistical analysis used was multiple regression analysis with helping tool like IBM. Findings indicated that leadership style and organizational culture, either holistically or partially, have effects on lecturer's job satisfaction.

2.3.3 Environmental Contingency Factors

Malik (2013) stated that task structure, work group and formal authority are the three categories of environmental contingency factors. Temple's (2013) study examined the job satisfaction of information technology and the effects of such a structure in financial sectors in USA. Organizational structure influences level of motivation and satisfaction of employees. It also had a correlation with employees reward systems in an organization. Structures influenced employee's autonomy, and pathways to objective delivery. Elangovan (2017) examined the association between task orientation, performance and job satisfaction amongst public organizations employees. When employees are satisfied with the job, they perform their duties with greater excellence. There was relationship between level of supervision and job performance. Tomazević, Seljak and Aristovnik (2014) examined factors influencing job satisfaction in police force. It was observed education levels of management and employees significantly influenced the satisfaction levels of the customers.

Yang and Wang (2013) investigated how an employee's attitude regarding authority affected the job satisfaction and how this differed in different cultures. The study found that individual employees regard for authority and job satisfaction was evident. Positive relation between respect for authority and job satisfaction was only partially supported. The relationship between job satisfaction, employee respect for authority and power distance were also only partially supported. Jha (2014) study aimed at examining the job satisfaction and turnover among employees in one of the Malaysian banking institutions. In particular, the study explored the differences between formal authority, intrinsic, and extrinsic satisfaction factors. Intrinsic and extrinsic satisfaction factors are significantly positive where formal authority is perceived.

Ganguly (2015) study investigated composition in work groups in terms of gender influenced employee's satisfaction at work in USA. The findings were that job satisfaction is related to the gender composition of employees in a given work group. However, there were no variations existing among male and female respondents on how the composition affected their satisfaction. Where the groups had gender balance there was greater job satisfaction across genders. Lowest satisfaction was noted in groups dominated by men while groups dominated by women were only averagely satisfied with their jobs.

3.0 Research Methodology

Positivism was the research philosophy adopted to guide this study. Positivism is used to support the testing of hypotheses and this is the key reason the philosophy was preferred. The study adopted descriptive correlational research design to analyze and provide responses to the research questions. The research design was preferred because it allows description and comparison of characteristics of populations based on data collected from samples through questionnaires. The population of the study consisted of 15,030 employees. A sample size of 386 was drawn using stratified random sampling.

Data was collected using self-administered questionnaires. The data was then analyzed using descriptive statistics of frequency and percentage distribution, mean, and standard deviation. Additionally, inferential data analysis methods were used. These include: factor analysis, Pearson's correlation, ANOVA, and multiple linear regression that were used to test the hypotheses.

4.0 Research Findings

This section shows the results of the demographic information of the respondents, participative leadership, achievement oriented leadership and environmental contingency factors. Out of 389 questionnaires, 370 were completed and returned making a 95% response rate.

4.1 Demographic Information

The demographic information of the respondents analyzed included gender of respondents, length of service and level of education. The results show that the majority (52%) of the respondents were male while the rest, 48% were female. From the study, 39% of respondents had worked for 5-10 years in the organizations, while 28% had worked for 1-5 years. In addition, 21% had worked for over 10 years. Only 11% had worked for less than one year. The results indicate that overwhelming majority (91%) of respondents had a first degree level of education.

4.1 Participative Leadership Style

4.1.1 Descriptive Statistics for Participative Leadership

Descriptive statistical analysis conducted by the study included mean and standard deviation.

The study aimed at examining how the participative leadership style influences employee job satisfaction among employees reporting to middle level managers in the Kenyan banking industry. Means and standard deviations were adopted in providing objective measures of comparison of the data. The Likert scale ranging from 0 – 4 where 0 = Not at all to 4 = Always was used in the questionnaire whereby the respondents were required to respond to statements by indicating their opinions. The study results are presented in Table 1.

The findings from the analysis reveal that on average, the supervisor delegates duties and tasks amongst the team members according to the capacity of each team member (*M* = 2.56, *SD* = .988). The findings also show that that productivity on the job has improved because supervisor asks for suggestions from team members or subordinates concerning how to carryout assignments (*M* = 2.99, *SD* = 0.986).

Table 1: Mean and Standard Deviation for Participative Leadership Style

Participative Leadership	**N**	**M**	**SD**
My team leader/supervisor asks for suggestions from team members or subordinates concerning how to carryout assignments	370	2.45	1.122
My team leader/supervisor delegates duties and tasks amongst the team members according to the capacity of each team member	370	2.56	.988
My team leader/supervisor involves me in decision making on how the tasks and duties should be performed effectively	370	3.02	1.019
Influence of Participative Leadership on Employee Job Satisfaction			
My productivity on the job has improved because my team leader/supervisor asks for suggestions from team members or subordinates concerning how to carryout assignments	368	2.99	.986
I am rarely absent from work because my team leader/supervisor delegates duties and tasks amongst the team members according to the capacity of each team member	368	2.63	.878
I do not intend to leave the organization because my team leader/supervisor involves me in decision making on how the tasks and duties should be performed effectively	368	2.49	1.280

4.1.2 Correlating Participative Leadership and Job Satisfaction

Table 2: Correlation Test for Participative Leadership Style

Participative Leadership and Job Satisfaction		Participative Leadership Style	Employee Job Satisfaction
Participative Leadership Style	Pearson Correlation	1	.820**
	Sig. (2-tailed)		.000
	N	370	370
Employee Job Satisfaction	Pearson Correlation	.820**	1
	Sig. (2-tailed)	.000	
	N	370	370

*. Correlation is significant at the 0.05 level (2-tailed).

Correlation refers to a quantitative estimation of the oscillation of two variables with each other. The increase or decrease of two variables in parallel leads to a positive correlation. However, in case one variable increases and the other decreases, then the correlation is negative. In this study, correlation analysis was undertaken to measure the strength of the linear association between the independent and dependent variables. Usually, the Pearson Correlation Coefficient, *r* values range from +1 to -1, that is coefficient *r* may portray either a positive or negative relationship. Table 2 presents the correlation coefficients between study variables. The results show a positive significant correlation coefficient between participative leadership style and employee job satisfaction, $r(370) = .820$, $p < .05$.

4.1.3 Regression Analysis and Hypothesis Testing

Multiple linear regression analysis is conducted to examine whether one or more independent/predictor variables cause changes in the dependent variable. A multiple regression analysis was conducted to demonstrate the relationship between the independent variable (participative leadership style) and the dependent variable (employee job satisfaction). Based on a multiple linear regression model, the study sought to determine the influence of participative leadership style on employee job satisfaction among the employees reporting to middle level managers in Kenyan commercial banks. Therefore, the hypothesis tested was:

$H0_1$: Participative leadership style has no significant influence on employee job satisfaction among employees reporting to middle level managers in commercial banks in Kenya.

The results from regression model summary explain the variations in dependent variable as a result of independent variable. The results in Table 3 show that participative leadership style caused a variation of 50% in employee job satisfaction among the employees reporting to middle level managers of commercial banks in Kenya, $R^2 = .500$. This means that when participative leadership style is applied in commercial banks in Kenya, 50% variations in employee job satisfaction among the employees reporting to middle level managers in commercial banks in Kenya could be observed.

Table 3: Regression Model Summary for Participative Leadership Style

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.707[a]	.500	.497	.67604998	.500	181.811	1	364	.000
2	.715[b]	.511	.506	.67017460	.011	4.205	1	362	.042

The study findings in Table 4 establish that the relationship between participative leadership style and employee job satisfaction was statistically significant, $F(1, 364) = 181.811$, $p < .05$. This means that participative leadership style was a good predictor of employee job satisfaction among employees reporting to middle level managers in the commercial banks in Kenya. Based on the significance of the *F*-statistic, the null hypothesis, participative leadership style has no significant influence on employee job satisfaction among employees reporting to middle level managers in commercial banks in Kenya, was rejected.

Table 4: ANOVA Test for Participative Leadership Style

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	83.095	1	83.095	181.811	.000[b]
	Residual	83.182	364	.457		
	Total	166.277	366			

Multiple linear regression was conducted to assess the direction and extent to which participative leadership style influences employee job satisfaction. The study findings confirmed that participative leadership style significantly predicted employee job satisfaction among employees reporting to middle level managers in the commercial banks in Kenya, $\beta = .673$, $t(370) = 13.484$, $p < .05$. This meant that a unit change in participative leadership style would lead to an increase in employee job satisfaction among the employees reporting to middle level managers in the banking industry by 0.673 units. Therefore, the study concluded that participative leadership style significantly predicts employee job satisfaction among employees reporting to middle level managers in the commercial banks of Kenya. Table 5 presents the study results.

Table 5: Regression Coefficients for Participative Leadership Style

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.100	.050		2.000	.047
	Participative leadership	.673	.050	.707	13.484	.000
2	(Constant)	.101	.049		2.039	.043
	Participative leadership	.596	.062	.626	9.592	.000
	ECFXPL	.130	.063	.134	2.051	.042

4.2 Achievement-Oriented Leadership Style

4.2.1 Descriptive Statistics

Under this variable, descriptive statistical analysis conducted included, mean and standard deviation.

The results indicate that on average, the supervisor sets challenging goals for employee duties and tasks ($M = 2.61$, $SD = .984$). It was also found that employees productivity on the job had improved because supervisors sets challenging goals for employee duties and tasks ($M = 2.97$, $SD = 0.966$). The study results are presented in Table 6.

Table 6: Mean and Standard Deviation for Achievement-Oriented Leadership

Achievement Oriented Leadership	**N**	**M**	**SD**
My team leader/supervisor sets challenging goals for my duties and tasks	370	2.62	1.170
My team leader/supervisor gives feedback for continuous improvement on job performance	370	2.61	.984
My team leader/supervisor encourages team members to perform their duties and tasks at the highest level of their abilities	370	2.98	1.040
Influence of Achievement Oriented Leadership on Employee Job Satisfaction			
My productivity on the job has improved because my team leader/supervisor sets challenging goals for my duties and tasks	370	2.97	.966
I am rarely absent from work because my team leader/supervisor gives feedback for continuous improvement on job performance	370	2.76	.954
I do not intend to leave the organization because my team leader/supervisor encourages team members to perform their duties and tasks at the highest level of their abilities	370	2.63	1.262

4.2.2 Correlation between Achievement Oriented Leadership Influence on Employee job satisfaction

Correlation refers to a quantitative estimation of the oscillation of two variables with each other. The increase or decrease of two variables in parallel leads to a positive correlation. However, in case one variable increases and the other decreases, then the correlation is negative. In this study, correlation analysis was undertaken to measure the strength of the linear association between the independent and dependent variables. Usually, the Pearson Correlation Coefficient, r values range from +1 to -1, that is coefficient r may portray either a positive or negative relationship. Table 7 presents the correlation coefficients between study variables. The results show that there was a positive significant correlation coefficient between achievement-oriented leadership style and employee job satisfaction $r(370) = 0.805$, $p < .05$.

Table 7: Correlation Test for Achievement-Oriented Leadership Style

Correlations			
Achievement Oriented Leadership Style and Job Satisfaction		Achievement-Oriented Leadership Style	Employee Job Satisfaction
Achievement-Oriented Leadership Style	Pearson Correlation	1	.805**
	Sig. (2-tailed)		.000
	N	370	370
Employee Job Satisfaction	Pearson Correlation	.805**	1
	Sig. (2-tailed)	.000	
	N	370	370

* Correlation is significant at the 0.05 level (2-tailed).

4.2.3 Regression Analysis and Hypothesis Testing

Multiple linear regression analysis is conducted to examine whether one or more independent/predictor variables cause changes in the dependent variable. A multiple regression analysis was conducted to demonstrate the relationship between the independent variable (directive leadership style) and the dependent variable (employee job satisfaction). Based on a multiple linear regression model, the study sought to determine the influence of achievement-oriented leadership style on employee job satisfaction among the employees reporting to middle level managers in Kenyan commercial banks. Therefore, the hypothesis tested was:

$H0_2$: Achievement-Oriented leadership style has no significant influence on employee job satisfaction among employees reporting to middle level managers in commercial banks in Kenya.

The results from regression model summary explain the variations in dependent variable as a result of independent variable. The results in Table 8 show that achievement-oriented leadership style caused a variation of 50.9% in employee job satisfaction among the employees reporting to middle level managers of commercial banks in Kenya, R^2 = .509. This means that when achievement-oriented leadership style is applied in commercial banks in Kenya, 50.9% variations in employee job satisfaction among the employees reporting to middle level managers in commercial banks in Kenya could be observed.

Table 8: Regression Model Summary for Achievement-Oriented Leadership Style

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Change Statistics**				
					R Square Change	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.714[a]	.509	.507	.62820778	.509	190.086	1	366	.000
2	.724[b]	.524	.519	.62061748	.014	5.504	1	364	.020
a. Predictors: (Constant), Achievement Oriented leadership									

The study results in Table 9 demonstrate that the relationship between achievement-oriented leadership style and employee job satisfaction among employees reporting to middle level managers in commercial banks was significant, $F(2, 366) = 190.086$, $p < .05$. These findings implied that the overall model was significant in associating achievement-oriented leadership style and employee job satisfaction among the managers of commercial banks. The findings also demonstrated that achievement-oriented leadership style was a good predictor of employee job satisfaction among the employees reporting to middle level managers in the commercial banks in Kenya. The study hence concluded that the model was significant in explaining the relationship between the independent variable (achievement-oriented leadership style) and the dependent variable (employee job satisfaction). Considering the significance of the F-statistic, the null hypothesis, achievement-oriented leadership style has no significant influence on employee job satisfaction among employees reporting to middle level managers of Kenyan commercial banks, was rejected.

Table 9: ANOVA Test for Achievement-Oriented Leadership Style

Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	75.016	2	75.016	190.086	.000[b]
	Residual	72.220	366	.395		
	Total	147.236	368			

Regression coefficient refers to the slope as indicated by the linear relationship between the independent and the dependent variables. Multiple linear regression was conducted to examine the magnitude and direction of the relationship between achievement-oriented leadership style and employee job satisfaction. The study findings confirmed that achievement-oriented leadership style significantly predicted employee job satisfaction among employees reporting to middle level managers in the commercial banks in Kenya, β = .639, $t(370) = 13.787$, $p < .05$. This implied that a unit change in achievement-oriented leadership style would lead to an increase in employee job satisfaction among the employees reporting to middle level managers in the banking industry by 0.639 units. As a result, the study concluded that achievement-orientated leadership style significantly predicts employee job satisfaction among employees reporting to middle level managers in the commercial banks of Kenya. Table 10 presents the study results.

Table 10: Regression Coefficients for Achievement-Oriented Leadership

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	.101	.046		2.194	.030
	Achievement Oriented leadership	.639	.046	.714	13.787	.000
2	(Constant)	.047	.051		.912	.363
	Achievement Oriented leadership	.633	.046	.708	13.821	.000
	AOLXECF	.097	.041	.120	2.346	.020
a. Dependent Variable: Employee job satisfaction						

4.3 Moderating Influence of Environmental Contingency Factors

4.3.1 Descriptive Statistics

The study in this sub-section conducted descriptive analysis namely; mean and standard deviation. The findings in Table 11 indicate that generally, the supervisor built a team of staff who worked on tasks together (M = 2.84, SD = 1.035). The study results also show that employee productivity on the job had improved because their supervisor provided a detailed job description and procedures for their tasks and duties (M=2.83, SD= .971).

Table 11: Mean and Standard Deviation for Environmental Contingency Factors

Environmental Contingency Factors	**N**	**M**	**SD**
My team leader/supervisor provides a detailed job description and procedures for my tasks and duties	370	2.38	1.122
My team leader/supervisor ensures there are processes in place that enables me to carry out my tasks and duties without the need to consult others	370	2.36	1.044
The team leader/supervisor builds a team of staff who work on tasks together	370	2.84	1.035
Influence of Environmental Contingency Factors on Employee Job Satisfaction			
My productivity on the job has improved because my team leader/supervisor provides a detailed job description and procedures for my tasks and duties	368	2.83	.971
I am rarely absent from work because my team leader/supervisor ensures there are processes in place that enables me to carry out my tasks and duties without the need to consult others	368	2.53	.862
I do not intend to leave the organization because my team leader/supervisor builds a team of staff who work on tasks together	368	2.33	1.278

4.3.2 Correlation between Environmental Contingency Factors and Employee Job Satisfaction

Table 12: Correlation Test for Environmental Contingency Factors

Correlations			
Environmental Contingency Factors and Job Satisfaction		Environmental Contingency Factors	Employee Job Satisfaction
Environmental Contingency Factors	Pearson Correlation	1	.817**
	Sig. (2-tailed)		.000
	N	370	370
Employee Job Satisfaction	Pearson Correlation	.817**	1
	Sig. (2-tailed)	.000	
	N	370	370

* Correlation is significant at the 0.05 level (2-tailed).

Correlation refers to a quantitative estimation of the oscillation of two variables with each other. The increase or decrease of two variables in parallel leads to a positive correlation. However, in case one variable increases and the other decreases, then the correlation is negative. In this study, correlation analysis was undertaken to measure the strength of the linear association between the moderating and dependent variables. Usually, the Pearson Correlation Coefficient, *r* values range from +1 to -1, that is coefficient *r* may portray either a positive or negative relationship.

Table 12 presents the correlation coefficients between study variables. The results showed that the there was a positive significant correlation coefficient between employee job satisfaction and environmental contingency factors $r(370) = 0.817$, $p < .05$.

4.3.2.1 Regression Analysis and Hypothesis Testing

The study sought to establish the moderating influence of environmental contingency factors on the relationship between path-goal leadership styles and job satisfaction of employees reporting to middle level managers at commercial banks in Kenya. The hypothesis tested was:

H_3: Environmental contingency factors do not have a significant moderating influence on the relationship between path-goal leadership styles and employee job satisfaction.

The results from regression model summary explain the variations in dependent variable as a result of independent variable. The results in Table 13 show that environmental contingency factors caused a variation of 9% in moderating the relationship between path-goal leadership styles and employee job satisfaction among the employees reporting to middle level managers of commercial banks in Kenya, $R^2 = .090$. This implies that when environmental contingency factors are applied in commercial banks in Kenya, 9% variations in moderation of relationship between path-goal leadership styles and employee job satisfaction among the employees reporting to middle level managers in commercial banks in Kenya could be observed.

Table 13: Regression Model after Moderation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.853[a]	.799	.761	.587	.799	3057.504	4	365	.000
2	.942[b]	.889	.850	.358	.090	3167.117	1	364	.000

a. Predictors: (Constant), Achievement-Oriented Leadership Style, Directive Leadership Style, Participative Leadership Style, Supportive Leadership Style

b. Predictors: (Constant), Achievement-Oriented Leadership Style, Directive Leadership Style, Participative Leadership Style, Supportive Leadership Style, Environmental Contingency Factors

Table 14: Regression ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	**Regression**	**107.311**	**4**	**26.828**	**30.57**	**.000[b]**
	Residual	3.203	365	.009		
	Total	110.514	369			
2	Regression	110.514	5	22.103	35.04	.000[c]
	Residual	.000	364	.000		
	Total	110.514	369			

a. Dependent Variable: Employee Job Satisfaction

b. Predictors: (Constant), Achievement-Oriented Leadership Style, Directive Leadership Style, Participative Leadership Style, Supportive Leadership Style

c. Predictors: (Constant), Achievement-Oriented Leadership Style, Directive Leadership Style, Participative Leadership Style, Supportive Leadership Style, Environmental Contingency Factors

The study results in Table 14 demonstrate that the moderating influence of environmental contingency factors between path-goal leadership style and employee job satisfaction among employees reporting to middle level managers in commercial banks was significant, $F(5, 364) = 35.04$, $p < .05$. These findings implied that the overall model was significant in associating environmental contingency factors, path-goal leadership style and employee job satisfaction among the managers of commercial banks. The findings also demonstrated that environmental contingency factors were a good predictor of path-goal leadership styles and employee job satisfaction among the employees reporting to middle level managers in the commercial banks of Kenya. The study hence concluded that the model was significant in explaining the relationship between the independent variable (path-goal leadership styles) and the dependent variable (employee job satisfaction). Considering the significance of the *F*-statistic, the null hypothesis, environmental contingency factors do not have significant influence on the relationship between path-goal leadership styles and employee job satisfaction among employees reporting to middle level managers in commercial banks in Kenya, was rejected

Regression coefficient refers to the slope as indicated by the linear relationship between the independent and the dependent variables. Multiple linear regression was conducted with an aim of examining how environmental contingency factors moderate the relationship between path-goal leadership styles and employee job satisfaction. The study findings confirmed that environmental contingency factors significantly moderate the relationship between path-goal leadership styles and employee job satisfaction among employees reporting to middle level managers in the commercial banks in Kenya, $\beta = 0.229$, $t\ (370) = 184.763$. The implication is that a unit increase in environmental contingency factors leads to an increase among the job satisfaction of employees by 0.419 units. As a result, the study concluded that environmental contingency factors significantly moderate the relationship between path-goal leadership styles and employee job satisfaction among employees reporting to middle level managers in the commercial banks in Kenya. Table 15 presents the study results.

Table 15: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**T**	**Sig.**
1	(Constant)	.052	.024		2.206	.028
	Directive Leadership Style	.245	.010	.290	24.836	.000
	Supportive Leadership Style	.210	.009	.276	22.133	.000
	Participative Leadership Style	.252	.010	.306	25.028	.000
	Achievement-Oriented Leadership Style	.266	.009	.334	28.502	.000
2	(Constant)	2.45	.000		.000	.000
	Directive Leadership Style	.232	.000	.236	190.625	.003
	Supportive Leadership Style	.245	.000	.263	203.650	.001
	Participative Leadership Style	.242	.000	.243	185.216	.000
	Achievement-Oriented Leadership Style	.278	.000	.251	194.130	.004
	Environmental Contingency Factors	.229	.000	.245	184.763	.000

a. Dependent Variable: Employee Job Satisfaction

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussion

5.1.1 *Participative Leadership Style and Employee Job Satisfaction*

The study sought to establish the influence of participative leadership style on job satisfaction in commercial banks in Kenya. The findings from correlation analysis showed positive significant correlation coefficient between participative leadership style and employee job satisfaction, $r(370) = .820$, $p < .05$. The findings agree with Lamb (2013) states that participative leadership encourage all employees to actively participate in various aspects of running the organization making them feel relevant. Polston-Murdoch (2013) found that a manager oriented to participative leadership is deliberate about employee involvement which improves their commitment and enhances partnership amongst them. The result is better quality and sustainable decisions. The satisfaction at work is improved.

Correlation analysis established that there was a positive significant correlation coefficient between employee job satisfaction and team leader/supervisor asking for suggestions from team members or subordinates concerning how to carry out assignments $r(370) = 0.507$, $p<.05$. The finding agrees with Yukl (2013) position that participative leadership style is keen on motivating employees from deep within by job enrichment. Job enrichment is attained by such things as increased autonomy at work, being offered a variety of paths to choose from in doing work and general empowerment. The implication is that employees in commercial banks are democratically engaged in making thus decisions making them feel connected to the organization.

5.1.2 Achievement Oriented Leadership Style and Job Satisfaction

The study sought to establish the influence of achievement oriented leadership style on job satisfaction among employees reporting to middle level managers in commercial banks in Kenya. The results from correlation analysis showed that there was a positive significant correlation coefficient between achievement-oriented leadership style and employee job satisfaction $r(370) = 0.805$, $p < .05$. The findings support Ratyan and Mohd (2013) suggestion that setting challenging goals and providing constant feedback to the employees by achievement oriented leaders assist in showing that the leader has confidence in them. The implication is that achievement oriented leadership is connected to reward systems for motivational purposes when the set targets are met resulting in job satisfaction for employees.

Correlation analysis established significant positive relationship existed between achievement oriented leadership style of the manager and employee job satisfaction. For example, there was a positive significant correlation coefficient between employee job satisfaction and team leader/supervisor setting challenging goals for duties and tasks $r(370) = 0.555$, $p < .05$. The findings support the statement that goal setting in the organization has great impact and significant positive correlation with employee organizational commitment, that eventually lead to enhanced employee job satisfaction (Ashraf *et al.*, 2012). Furthermore, achievement guided kind of leadership is best positioned when goals, task clarity is poor, employee are de-motivated, or they need a boost in their confidence. Further, achievement-oriented leadership style suit with unclear tasks and employees who may need a morale booster through rewards to increase their confidence in ability to accomplish the given goal.

5.1.3 *Environmental Contingency Factors and Employee Job Satisfaction*

Environmental contingency factors were the moderating variable in this study. The correlation analysis showed that there prevailed a strong and positive relationship between environmental contingency factors and employee job satisfaction, $r(370) = .817$, $p < .05$. This agree with Northhouse (2013) that where uncertainties are present, environmental contingency factors such as formal authority system through achievement oriented, directive, supportive and participative leaders assist in enhancing employee job satisfaction.

The study revealed a significant correlation between task structure and employee job satisfaction, $r(370) = .505$, $p < .05$. A study by Temple (2013) confirmes that organizational structure influences level of motivation and satisfaction of employees. It also had a correlation with employees reward systems in an organization. Structures influenced employee's autonomy, and pathways to objective delivery. Elangovan (2017) study on the association between task orientation, performance and job satisfaction amongst public organizations employees. When employees are satisfied with the job, they perform their duties with greater excellence. There was a relationship between level of supervision and job performance. Tomazevic, Seljak and Aristovnik (2014) examined factors influencing job satisfaction in police force. It was observed that education levels of management and employees significantly influenced the satisfaction levels of the customers.

5.2 Conclusion

5.2.1 *Participative Leadership Style*

The study investigated the influence of participative leadership style on employee job satisfaction among employees reporting to middle level managers in commercial banks in Kenya. The results from multiple linear regression analysis revealed that participative leadership style positively and significantly predicted employee job satisfaction among employees reporting to middle level managers at commercial banks in Kenya.

5.2.2 *Achievement Oriented Leadership Style*

The study sought to establish the influence of achievement oriented leadership style on job satisfaction among employees reporting to middle level managers in commercial banks in Kenya. The results from multiple linear regression analysis established that achievement-oriented leadership style positively and significantly predicted employee job satisfaction among employees reporting to middle level managers at commercial banks in Kenya.

5.2.3 *Moderating Influence of Environmental Contingency Factors*

The study established that environmental contingency factors significantly influenced the relationship between path-goal leadership style and employee job satisfaction among employees reporting to middle level managers in commercial banks in Kenya. The results from the multiple linear regression analysis revealed that environmental contingency factors significantly moderated the relationship between path-goal leadership style and employee job satisfaction among employees reporting to middle level managers in the commercial banks in Kenya.

5.3 Recommendations

5.3.1 Participative Leadership Style

The study found that there was significant influence of participative leadership style on job satisfaction of employees reporting to middle level managers in commercial banks in Kenya. This shows that involvement of employees, especially employees reporting to middle level managers in organization's decision making process is essential in enhancing job satisfaction in commercial banks in Kenya. Team leaders should be asking for suggestions from team members concerning how to carry out assignments before directing them on how to do the assignments.

5.3.2 Achievement Oriented Leadership Style

The study found that there was significant influence of achievement-oriented leadership style on job satisfaction among employees reporting to middle level managers in commercial banks in Kenya. Supervisors should be setting challenging goals for the duties of employees and be giving feedback for continuous improvement on the job performance.

5.3.3 Moderating Effect of Environmental Contingency Factors

The study established that environmental contingency factors significantly influenced the relationship between path-goal leadership style and employee job satisfaction among employees reporting to middle level managers in commercial banks in Kenya. Team leaders should be providing detailed job description and procedures for the employee tasks and duties to enhance job productivity.

5.3.4 Suggestions for Further Research

The target population for this study was middle level managers. Even though middle level managers are more involved in supervising the execution of orders from top management, lower level employees would have provided more crucial information about their job satisfaction levels as they are the very people that execute the decisions made by top management. The study hence recommends the inclusion of all employees in the process of determining the influence of path-goal leadership style on employee job satisfaction.

References:

1. Abend, G. (2013). *The Meaning of Theory: Sociological Theory.* San Francisco, CA: Berrett-Koehler Publishers.
2. Akhigbe, J. O., Finelady, M. A., & Felix, O. O. (2014). Transactional Leadership Style and Employee Satisfaction in Nigerian Banking Sector. *European Journal of Business and Management, Vol. 6*(26), 15-23.

3. Alanazi, E. (2013). Overview of path-goal leadership theory. *Sains Humanika 64* (2), 1-2.
4. Anitha, M. (2014). Determinants of employee engagement and their impact on employee performance. *International Journal of Productivity and Performance Management, 63*(3), 308-323.
5. Ashraf MA, Ahmad MSA, Ashraf M, Al-Qurainy F, Ashraf MY (2012). Alleviation of waterlogging stress in upland cotton (Gossypium hirsutum L.) by exogenous application of potassium in soil and as a foliar spray. Crop Pasture Sci., 62(1): 25-38.
6. Aziri B. (2016). Job satisfaction: A Literature Review. *Management Research And Practice*, *3* (4), 77-86
7. Bolman, & Deal. (2013). Leadership and Management Model. *European Journal of Business and Strategic Management*, *1*, (1), 1-6.
8. Dubrin, A. (2015). *Leadership: Research findings, practice, and skills.* New York: Nelson Education Publishers.
9. Elangovan, A. R. (2017). Causal ordering of stress, satisfaction and commitment, and intention to quit: a structural equations analysis. *Leadership & Organization Development Journal*, *22*(4), 159-165.
10. Famakin, I., & Abisuga A. (2016). Effect of path-goal leadership styles on the commitment of employees on construction projects. *International Journal of Construction Management*, *16* (2)10-11.
11. Ganguly R. (2015). Composition of work groups, Quality of work life and job satisfaction of employees in USA. *Asian Journal of Management Research*, 1 (8), 2229 – 3795.
12. Gustafsson, J., & Hornay. P. (2014). *Leadership Driving Successful Implementation of Continuous Improvement Programs- A Case Study Using the Path Goal Model.* Master Thesis, Technology Management-Nr 282/2015, University of Sweden.
13. Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2012). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, *8* (5), 268–279
14. House, R. (1971). A Path-Goal Theory of Leader Effectiveness. *Administrative Science Quarterly*, 16, 321-328.
15. House, R. J., & Mitchell, T. R. (1974). Path-goal theory of leadership. *Journal of Contemporary Business, Journal of Humanities, 3 (1)* l–97.
16. Jeruto, K. (2015). *Organizational commitment and job satisfaction in higher educational institutions: the Kenyan case.* PhD thesis, Middlesex University.
17. Jha, S. (2014). Determinants of employee turnover intentions. *Organization Development Journal*, *2*(1), 15-16.

18. Jit, S. C. (2013). *Organizational Behavior*, (3rd Ed.). VIKAS Publishing House, Reprint.
19. Kagwiria, L., (2016). *Influence of Leadership on Employee Productivity at KCB Bank Kenya Ltd.* Nairobi Branches, University of Nairobi.
20. Kenya Bankers Association, (2018). *Annual Report.* Government Press.
21. Khuong, M. N. & Dang, T. H. (2015). The Effects of Leadership Styles on Employee Motivation in Auditing Organizations in Ho Chi Minh City, Vietnam, *International Journal of Trade, Economics and Finance*, *6* (7), 12-14.
22. Lamb, R. (2013). How can Managers Use Participative Leadership Effectively? Retrieved January 1, 2018, from http://www.achievement.fm/participative-leadership.
23. Lumbasi, G. W., K'Aol, G. O., & Ouma, C. A. (2016). The effect of achievement oriented leadership style on the performance of COYA Senior Managers in Kenya. *International Journal of Novel Research in Marketing Management and Economics*, *3*(2), 118-125
24. Lussier, N. R., & Achua, C. F. (2010). *Effective Leadership.* London: Thomson South-Western.
25. Malik, S. H. (2013). Leadership Behavior and Employee Job Satisfaction: A Study of Path-Goal Theory in Telecom Sector. (Unpublished doctoral dissertation) Islamabad: National University of Modern Languages.
26. Mohammad, V. Nazari, A. A., & Mehrdad, G. C. (2013). The relationship between employees empowerment with job satisfaction in Melli Bank of Guilan Province. *Arabian Journal of Business and Management Review (OMAN Chapter) 2 (12), 71-73.*
27. Moorhead., G & Griffin R. (2012). *Managing Organizational Behavior*, South-Western Cengage Learning.
28. Negron, D. (2008). *A case study examining the relationship of the path-goal theory leadership styles to profits in El Paso, Texas, Rent-A-Center stores.* Capella: Capella University.
29. Northouse, P. (2013). *Leadership Theory and Practice*. Thousand Oaks: Sage Publications, Inc.
30. Nyaberi, E. N., & Kiriago, A. N. (2013). *Effects of Retrenchment on the Morale and Job Security of Surviving Employees in Kenya.* London: Sage Publications.
31. Otieno, B. B. A., Waiganjo, E. W., & Njeru, A. (2015). Effect of Employee Engagement on Organization Performance in Kenya's Horticultural Sector. *International Journal of Business Administration*, *6*(2), 1-4.

32. Polston-Murdoch, L. (2013). An Investigation of path-goal theory, relationship of leadership style, supervisor-related commitment, and gender. *Journal of Emerging Leadership Journeys 1* (4), 21-25.
33. Ratyan, T., & Mohd, A. (2013). Overview of Path-Goal Leadership Theory. *Comprehensive Research Journals, 1*(1), 1-5.
34. Robbins, S. P. (2005). *Organizational Behavior* (11th Ed.) Pearson Prentice-Hall, Englewood Cliffs, N.J.
35. Robbins, S. P. (2014). *Organizational Behavior* (16th Ed.). Upper Saddle River: Prentice Hall.
36. Shafritz, J. M. (2010). *Introducing Public Administration.* Philadelphia: Longman Inc.
37. Suradi, A. (2017) examined and analyzed the effect of leadership style and Organizational Culture on Lecturer's job satisfaction in Russia. *Russian Journal of Agricultural and Socio-Economic Sciences, 1* (1), 12-13
38. Taris, T. W. (2016). Is there a relationship between burnout and objective performance? *A critical review of 16 studies: work and stress, Journal of Humanities, 20*(3), 316-334.
39. Temple, J. C. (2013). *A Quantitative Study of Factors Contributing to Perceived Job Satisfaction of Information Technology Professionals Working in California Community Colleges.* Doctoral Dissertation. University of La Verne.
40. Titko, J., & Lace, N. (2015). Customer satisfaction and loyalty in Latvian retail banking. *Economics & Management*.
41. Tomazˇevicˇ, N., Seljak, J. & Aristovnik, A. (2014). Factors influencing employee satisfaction in the police service: the case of Slovenia. *Journal of Social Sciences 6(1)*, 64 – 73.
42. Vroom, V.H. (1964). *Work and motivation.* New York: Wiley.
43. Yang, X., W. Wang, (2013). Exploring the Determinants of Job Satisfaction of Civil Servants in Beijing, China. Public Personal Management. *Journal of Management, 2* (1), 2-3.
44. Yukl, G. A. (2013). *Leadership in Organizations* (7th Ed.). Englewood Cliffs, NJ: Prentice Hall.