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THE BILL OF LADING IN AN ERA OF ELECTRONIC COMMERCE:
LEGAL DEVELOPMENTS AND THE REFORM OPTIONS FOR NIGERIA

By

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Submitted in partial fulfillment of the requirements

for the degree of Master of Laws

at

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Dedication

This thesis is dedicated to:

- My mother, Madam Louisa Ugwuokpe for her evergreen love for me
- My late father for the seed of hard work that he sowed in me
- Schulich School of Law, Dalhousie University, for its boundless kindness to me
- Above all, God Almighty for His abundant grace for my rebellious soul.

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Abstract

One of the pervasive effects of the advancement in information and communication technology is a radical shift in the means of conducting business transactions. With the digitalization of the global economy, business transactions are increasingly conducted in an electronic medium. The bill of lading, as the most important ocean transport document, has, in response to the needs of the times, passed through many phases of development to its present electronic nature. The problem however, is adapting the challenges of electronic commerce to the old contractual legal order. For the bill of lading, the challenge is the replication of all its traditional functions in electronic settings. Achieving this requires well-established electronic and legal infrastructure. This thesis evaluates the present electronic bill of lading regime in Nigeria with particular reference to the positions in Canada and the United Kingdom and discusses the reform options open to Nigeria in addressing these challenges.

List of Abbreviations Used

AC	Appeal Cases
ACA	<i>Arbitration and Conciliation Act</i> , 1988 (Nigeria)
AG	Attorney-General
AJA	<i>Admiralty Jurisdiction Act</i> , 1991(Nigeria)
All ER	All England Law Report
All FWLR	All Federation Weekly Law Report (Nigeria)
BAL	Bolero Association Limited
BCMP	Bolero Core Messaging Platform
BIL	Bolero International Limited
BTR	Title Registry (Bolero)
CA	Court of Appeal (Nigeria)
CAP	Chapter
CEA	<i>Canada Evidence Act</i> , 1985
CMI	Comité Maritime International
COGSA	<i>Carriage of Goods by Sea Act</i> , 1992 (United Kingdom)
DSUA - ESS	Databridge Services and Users Agreement
EA	<i>Evidence Act</i> , 2011 (Nigeria)
EC	European Commission

ECPB	<i>Electronic Commerce (Provision of Legal Recognition) Bill, 2011</i> (Nigeria)
eCrimes	Electronic Crimes
EDI	Electronic Data Interchange System for Transport Document
eFailure	Electronic Failure
eRisks	Electronic Risks
ESS – DSS	Data Bridge System of the Electronic Shipping Solution Databridge Exchange Limited
ETB	<i>Electronic Transactions Bill, 2011</i> (Nigeria)
EU	European Union
eUCP	Uniform Customs and Practice for Documentary Credits (Supplement For Electronic Presentation)
FRN	Federal Republic of Nigeria
ICAO	International Civil Aviation Organization
ICC	International Chamber of Commerce
ID	Identity
JCA	Justice of the Court of Appeal
KB	Kings Bench Division
KM	Kilometre
KTNET	Korea Trade Net
LFN	Laws of the Federation of Nigeria

LPELR	Law Pavilion Electronic Law Report
LTD	Limited
MECA	<i>Electronic Commerce Act</i> , 2006 (Malaysia)
MLA	<i>Marine Liability Act</i> (S.C. 2001, c. 6 (Canada))
MLEC	<i>UNCITRAL Model Law on Electronic Commerce</i> , 1996
MLES	<i>UNCITRAL Model Law on Electronic Signatures</i> , 2001
NIG	Nigeria
NNPC	Nigerian National Petroleum Corporation
NSSC	Nova Scotia Supreme Court
NWLR	Nigerian Weekly Law Report
ONCA	Ontario Court of Appeal
P & I Club	Protection and Indemnity Insurance Club
PKI	Public-Key Infrastructure
PLC	Public Limited Liability Company
QB	Queens Bench Division
SC	Supreme Court of Nigeria
SCR	Supreme Court Reports (Nigeria)
SeaDocs	Chase Manhattan Bank's Seaborne Trade Documentation System
SWIFT	Society for Worldwide Interbank Financial Telecommunication

TTC	Through Transport Club
TTP	Trusted Third Party
UBA	Union Bank for Africa Plc
UBN	Union Bank of Nigeria Plc
UCC	<i>Uniform Commercial Code</i> (New York)
UECA	<i>Uniform Electronic Commerce Act</i> , 1999 (Canada)
UEEA	<i>Uniform Electronic Evidence Act</i> , 1998 (Canada)
UETA	<i>Uniform Electronic Transactions Act</i> 1999 (United States of America)
UK	United Kingdom
ULCC	Uniform Law Conference of Canada
UN	United Nations
UN/EDIFACT	United Nations <i>Rules for Electronic Data Interchange for Administration, Commerce and Transport</i>
UNCID	<i>Uniform Rules of Conduct for Interchange of Trade Data by Transmission</i>
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNCUEC	United Nations <i>Convention on the Use of Electronic Communications in International Contract</i> , 2005
UNECA	<i>Uniform Electronic Commerce Act</i> Annotated, 1999 (Canada)

UNIDROIT	International Institute for the Unification of Private Law
UNTS	United Nations Treaty Series
US	United States of America

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Chapter 1: Introduction

1.1 Purpose and Rationale for the Study

The aims of this research are to: (a) determine the extent to which the electronic bill of lading has become a replacement or less radically, an alternative to the paper bill of lading; (b) account for the legal and practical reasons for the failure of electronic bills of lading to successfully substitute their electronic counterparts; (c) discuss possible solutions for a successful substitution of paper bills of lading with electronic ones, and (d) consider the legal and policy implications of the use of electronic bill of lading for maritime transport of goods to and from Nigeria, using the United Kingdom's (UK), Canadian and international electronic commerce regimes and practices as points of reference.¹ The integration of electronic commerce into global business can fairly be attributed to the phenomenal growth and pervasive influence of information and communication technology, particularly the internet's impact on the lives of many people and businesses across the globe since its commercialisation in the first half of the 1990s.² The revolution in information and communication technology has significantly changed the nature and methods of human and business relations.³ In our contemporary internet age, business transactions are increasingly conducted in electronic medium.⁴ Beyond the question of human trust in electronic systems and transactions, a successful transition from paper to electronic business requires efficient electronic and legal infrastructure.⁵ These developments have put the nature and methods of interactions between humans and

¹See generally TJ Smedinghoff, "The Legal Challenges of Implementing Electronic Transactions" (2008) 4:1 Uniform Commercial Code Law Journal 3.

²RJ Mann, *Electronic Commerce*, 2nd ed (New York, NY: Aspen Publishers, 2008) at 1. See generally also T Scassa & M Deturbide, *Electronic Commerce and Internet Law in Canada* 2nd ed (Toronto, Canada: CCH Canadian Limited, 2012) at xi-ii.

³See generally J Wahome, "The Digital Age: Internet-The Unchecked Global Sensation?" (2014) 2:9 International Journal of Education and Research 271 at 271.

⁴IR Kerr, "Ensuring the Success of Contract Formation in Agent-Mediated Electronic Commerce" (2001) 1 Electronic Commerce Research 183 at 183-4.

⁵See generally I Alsmadi, I Alhami, & H Alsmadi, "The Requirements for Building an E-commerce Infrastructure" (2009) 2:2 International Journal of Recent Trends in Engineering 7.

businesses under legal and technical pressures.⁶ This is because, whereas information and communication technology are advancing astronomically, the longstanding contractual rules of engagement in business relations are not being adapted fast enough to accommodate the new technological realities.⁷

The gap between information and communication technology and the contractual rules of engagement in business relations is no less obvious in maritime electronic commerce.⁸ The emergence of electronic bills of lading has contributed significantly to exposing the inadequacy of the existing traditional legal rules and principles in dealing with information and communication technological advancements of our time to the satisfaction of all the players in maritime trade.⁹

Transport documents, particularly the bill of lading, are crucial to international trade transactions.¹⁰ A bill of lading performs three main functions:¹¹ it serves as a receipt for the goods received for shipment or which were actually shipped; it confirms or evidences the contract of carriage; and, it serves as the document of title in relation to the goods shipped.¹² As regards the first function of serving as a receipt for the goods shipped, the bill of lading is conclusive evidence as between the carrier and the consignee or holder to whom the bill has been transferred in good faith.¹³ This particular rule, among others, helps in securing the confidence of maritime stakeholders¹⁴ in the bill of lading, knowing

⁶*Supra* note 3 at 271.

⁷See generally KP Marshall, "Has Technology Introduced New Ethical Problems?" (1999) 19 *Journal of Business Ethics* 81 at 82.

⁸See generally J Livermore & K Euarjai, "Electronic Bills of Lading and Functional Equivalence" (1998) 2 *The Journal of Information, Law and Technology (JILT)*. See also T Schmitz, "The bill of lading as a document of title" (2011) 10:3 *Journal of International Trade Law and Policy* 255.

⁹*Ibid.*

¹⁰M Dubovec, "The Problems and Possibilities for Using Electronic Bills of Lading as Collateral" (2006) 23:2 *Arizona Journal of International & Comparative Law* 437 at 438.

¹¹M Goldby, *Electronic Documents in Maritime Trade: Law and Practice* (Oxford, UK: Oxford University Press, 2013) at 88.

¹²*Ibid.*

¹³*Supra* note 10 at 441.

¹⁴A wide range of stakeholders are involved in international shipping including shippers, consignees, banks, underwriters and Protection and Indemnity Insurance Clubs (P & I Clubs).

that the carrier would not be allowed to subsequently question or deny the information as to the apparent condition of the goods, their quantity or weight, identification and leading marks, number of packages, and the date of receipt in the case of received-for-shipment bills of lading, or date of shipment listed on the face of the bill itself.¹⁵ According to Dubovec, there is some divergence of opinions among scholars as well as the courts in relation to the second function. That is, does the bill of lading constitute the carriage contract between the parties, or, is it merely evidence of such a contract.¹⁶ Dubovec however, concludes that, the bill of lading, whether the contract of carriage itself or merely evidence of such a contract, is an important document of reference in determining the rights, obligations and liabilities of the parties under the sea carriage contract.¹⁷ The third function of serving as a document of title is the most significant of the three functions of a bill of lading, particularly for the purpose of this thesis. It is the document-of-title function that gives a bill of lading its special character among shipping documents.¹⁸ Lawful possession of the bill is as good as possession of the goods represented in or by it, and the carrier is obligated to deliver the goods upon presentation of the bill.¹⁹

A wide range of interests are involved in international shipping.²⁰ An electronic bill of lading can only be successful if it can fulfil the same functions as a paper bill to the satisfaction of all the interests involved in an international maritime transaction.²¹ With the emergence of electronic communication forms and electronic commerce in international trade, it seemed reasonable to conclude that paper transport documents will soon find a deserved resting place in the annals of history. However, this has not been so despite efforts made to date by the various stakeholders in the international shipping

¹⁵*Supra* note 10 at 441.

¹⁶*Ibid.*

¹⁷*Ibid.*

¹⁸S Baughen, *Shipping Law*, 3rd ed (London, UK: Cavendish Publishing Limited, 2004) at 8.

¹⁹*Ibid* at 6; *supra* note 10 at 442; AJ Bělohávek, “Law Applicable to International Carriage: EU Law and International Treaties” in AJ Bělohávek & N Rozehnalova, ed, *Czech Yearbook of International Law* (New York, NY: Juris Publishing Inc, 2015) 27 at 53.

²⁰See generally *supra* note 10 at 438.

²¹*Ibid.*

industry to replace paper bills with their electronic counterparts.²² It has been difficult to replicate the document-of-title function in an electronic setting.²³ This is more so in developing countries like Nigeria with little or no electronic and legal infrastructure that can ensure the replication of the document-of-title function of a bill of lading in an electronic environment.²⁴

As a maritime nation, Nigeria has a coastline of over 750km and eight major ports excluding oil terminals, with the national ports possessing a cargo handling capacity of about 35million tonnes per annum, made up of imports and exports.²⁵ Nigeria as an exporter and importer²⁶ therefore has an important interest in ensuring efficient shipping using transport documents, particularly in the electronic commerce regimes both at the national and international levels. However, Nigeria's present legal and electronic infrastructure are not adequate for responding to the challenges of the electronic bill of lading.²⁷ In the circumstances, Nigeria needs a law and policy framework that will adequately accommodate the demands of contemporary international electronic commerce and documentation.

1.2 Literature Review

Numerous scholars have explored reasons for the failure of electronic bills of lading to successfully replace the traditional paper bills. They have proposed possible legal and

²²See generally AC Vieira, *Electronic Bills of Lading* (LLM Thesis, University of Nottingham School of Law, 1999) [unpublished].

²³See generally *supra* note 10 at 448-9.

²⁴See generally, OS Omadjohwoefe, "Nigeria's Development Challenges in a Digitalized Global Economy" (2010) 4(4):17 Indexed African Journals, Online:111 at 116 <http://www.ajol.info/index.php/afrev/article/view/69213/57249>.

²⁵O Donatus & O Geraldine, "An Evaluation of Nigeria's Seaborne Trade and Demand for Sea Transport" (2012) 4:13 European Journal of Business and Management 187 at 187-8& 194.

²⁶MA Babatunde, "Are Exports and Imports Cointegrated? Evidence from Nigeria" (2014) 7:2 Journal of International and Global Economic Studies 45 at 45-7.

²⁷See generally *supra* note 24.

technical solutions to the challenges faced by electronic documents, particularly electronic bills of lading.²⁸

Aikens, Lord and Bools²⁹ and Baughen³⁰ explore the general nature, functions and significance of the bill of lading in carriage of goods by sea and the complex issues that arise in the course of the bill of lading performing its basic functions as a receipt for the goods received for shipment or actually shipped, as evidence of the contract of carriage and as a document of title in relation to the goods shipped. These authors also discuss

²⁸See e.g. HM Kindred, "Trading Internationally by Electronic Bills of Lading" (1992) 7 Banking & Finance Law Review 265; AG Hamid, "The Legal Implications of Electronic Bills of Lading: How Imminent is the Demise of Paper Documents?" (2004) 33:3 The Journal of the Malaysian Bar 1; A. Elentably, "The Advantage of Activating the Role of the EDI-Bill of Lading And its Role to Achieve Possible Fullest" (2012) 6:4 International Journal on Marine Navigation and Safety of Sea Transportation 595; A Lai & P Wu, "Bearer Electronic Bills of Lading Based on Challenge-Response Strategy" (2003) 5 Journal of the Eastern Asia Society for Transportation Studies 587; A Delmedico, "EDI Bills of Lading: Beyond Negotiability" (2003) 1:1 Hertfordshire Law Journal 95; AN Yiannopoulos, ed, *Ocean Bills of Lading: Traditional Forms, Substitutes, and EDI Systems* (The Hague: Kluwer Law International, 1995); B Kozolchyk, "Evolution and Present State of the Ocean Bill of Lading from a Banking Law Perspective" (1992) 23:2 Journal of Maritime Law and Commerce 161; C Charles, *E-Commerce Law for Business Managers* (Canterbury, UK: Financial World Publishing, 2002); ET Laryea, "Paperless Shipping Documents: An Australian Perspective" (2000) 25:1 Tulane Maritime Law Journal 255; ET Laryea, *Paperless Trade: Opportunities, Challenges and Solutions* (The Hague: Kluwer Law International, 2003); FF Wang, *Law of Electronic Commercial Transactions: Contemporary Issues in the EU, US and China*, 2nd ed (Oxford, UK: Routledge, 2014); FF Wang, "Obstacles and Solutions to Internet Jurisdiction: A Comparative Analysis of the EU and US laws" (2008) 3:4 Journal of International Commercial Law and Technology 233; GF. Chandler, III, "Maritime Electronic Commerce for the Twenty-First Century" (1989) 22 TUL. MAR. L.J. 463; I Alsmadi, I Alhami, & H Alsmadi, "The Requirements for Building an E-commerce Infrastructure" (2009) 2:2 International Journal of Recent Trends in Engineering 7; JK Winn, "Emerging Issues in Electronic Contracting, Technical Standards and Law Reform" (2002-3) Rev. dr. unif. 699; JY Gliniecki & CG Ogada, "The Legal Acceptance of Electronic Documents, Writings, Signatures, and Notices in International Transportation Conventions: A Challenge in the Age of Global Electronic Commerce" (1992-1993) 13(1) Nw. J. Int'l L. & Bus. 117; M Alba, "Electronic Commerce Provisions in the UNCITRAL Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea" (2009) 44 Texas International Law Journal 387; M Goldby, "Electronic Bills of Lading and Central Registries: What is Holding Back Progress?" (2008) 17:2 Information & Communications Technology Law 125; M Goldby, *Electronic Documents in Maritime Trade: Law and Practice* (Oxford, UK: Oxford University Press, 2013); RE Kahn & PA Lyon, "Representing Value as Digital Objects: A Discussion of Transferability and Anonymity" (2006) 5 Journal On Telecommunications and High Technology Law 189; RP Merges & GH Reynolds, "Toward a Computerized System for Negotiating Ocean Bills of Lading" (1986) 6 Journal of Law and Commerce 23; RJ Mann, *Electronic Commerce*, 2nd ed (New York, NY: Aspen Publishers, 2008); SC Chukwuma, "Can the Functions Of A Paper Bill Of Lading Be Replicated By Electronic Bill Of Lading?" (2013) 3:8 Public Policy and Administration Research 101; AJ Bělohlávek, "Law Applicable to International Carriage: EU Law and International Treaties" in AJ Bělohlávek & N Rozehnalova, ed, *Czech Yearbook of International Law* (New York, NY: Juris Publishing Inc, 2015) 27.

²⁹R Aikens, R Lord & M Bools, *Bills of Lading* (London, UK: Informa Law, 2006).

³⁰*Supra* note 18 at 8.

briefly the nature and challenges of the electronic bill of lading in achieving a functional equivalence with the traditional paper bill of lading.

Livermore and Euarjai, in their article,³¹ reveal that, in order to take advantage of speed, the shipping industry developed the electronic data interchange system for transport document (EDI) to replace conventional paper shipping documents, including bills of lading. However, they acknowledge that a variety of technical and legal obstacles have conspired to slow down the effective substitution of paper bills of lading with their electronic equivalents. According to them, the main impediment is the insistence of the law on paper documentation. Another important work on electronic bills of lading is *Ocean Bills of Lading: Traditional Forms, Substitutes, and EDI Systems*, an edited collection of national reports presented in 1994 at the XIVth International Congress of Comparative Law.³² This collection of reports (collection), although published in 1995, is still very relevant today. The collection reveals that the electronic bill of lading is a new species of the bill of lading necessitated by the specific trade needs of our digitalized contemporary economy. The focus of the collection is on electronic communications or messages that may function as negotiable bills of lading, the technical and legal questions that such communications or messages raise, and the existence or non-existence of appropriate legal regimes in relation to such communications or messages. The editor's general report focuses on the comparative advantage that the electronic bill of lading has over its traditional counterpart. According to him, the use of the electronic bill results in reduced cost, greater efficiency and security. He posits that electronic bill of lading has addressed the challenge whereby the bill of lading arrives at the port of discharge later than the goods due to containerization and improved shipping. The national contributors to the panel and the collection maintain that, the decision to use an electronic bill in lieu of the paper bill is ultimately a business one, determined after a cost-benefit analysis of the use of the

³¹*Supra* note 8.

³²AN Yiannopoulos, ed, *Ocean Bills of Lading: Traditional Forms, Substitutes, and EDI Systems* (The Hague: Kluwer Law International, 1995). As a collection of reports that emerged from the XIVth International Congress of Comparative Law held in Athens 1994, this work provides great insights into the legal and technical challenges faced by the EDI system and electronic bills of lading across different jurisdictions.

electronic bill of lading vis-a-vis the paper bills. In other words, the ultimate practical question posed by businesses is: do the business benefits of using an electronic bill outweigh the concerns for accuracy of information and security of transactions and for privacy and the safeguarding of trade secrets? The national contributors to the panel and the collection are also of the view that, such concerns are better addressed through technological rather than legal solutions.

No less relevant is Goldby's work.³³ She examines the peculiar problems that arise with respect to formation of contracts and performance of resultant obligations in complex international sea carriage transactions in which electronic bills of lading are employed. In assessing the ability of electronic alternatives to achieve functional equivalence with the traditional bills, particularly with respect to serving as negotiable document of title, the book examines both the legal and practical barriers to effective replacement of the paper bills with the electronic ones, such as the issue of fraud and the challenge of lack of trust in the electronic documentation by maritime stakeholders. She further discusses the industry practice in the use of electronic bills of lading, exploring among others, both the EU's and the United Nations' legal regimes on it, and analysing what legislative and/or regulatory interventions may be necessary to achieve a complete substitution of the paper bills of lading with electronic ones. She concludes that in most jurisdictions, there are no requisite legal frameworks to support negotiation of electronic bills, and that such results can only be achieved by appropriate private schemes or arrangements. She consequently advocates in her article,³⁴ a proper third-party or central registry systems to achieve negotiability of the electronic bills of lading.

Wang,³⁵ focuses on the challenges posed to the existing paper-focused legal rules and legislation, and the strains they exert on their application in our computerized modern society. In order to achieve greater legal certainty in cross-border electronic transactions,

³³*Supra* note 11.

³⁴M Goldby, "Electronic Bills of Lading and Central Registries: What is Holding Back Progress?" (2008) 17:2 Information & Communications Technology Law 125 at 127.

³⁵FF Wang, *Law of Electronic Commercial Transactions: Contemporary Issues in the EU, US and China*, 2nd ed (Oxford, UK: Routledge, 2014).

her work seeks solutions to the problem of lack of trust and confidence in electronic business dealings. With a view to harmonizing the relevant legal rules at the national, international and supranational levels, in response to the emerging technical challenges from our digital global economy, her work provides a comparative discussion of the European Union (EU), United States of America (US), Chinese and United Nations (UN) legal regimes on e-commerce.

Equally important are contributions by Laryea,³⁶ Dubovec,³⁷ Rev. Fr. Chukwuma,³⁸ Elentably³⁹ and Kindred.⁴⁰ These authors discuss the legal and technical obstacles to replication of the functions of the traditional paper bills in an electronic environment, particularly the third function of serving as a document of title. According to them, achieving negotiability through an electronic bill of lading will require efficient electronic and legal infrastructure. They are of the view that an efficient legal infrastructure will achieve media neutrality and functional equivalence between paper and electronic bills of lading. Laryea, Rev. Fr. Chukwuma and Dubovec advocate enactment of appropriate legislation to tackle the challenges of electronic documentation including electronic bills of lading.⁴¹ Kindred⁴² as early as 1992 specifically discussed the operation of Electronic Data Interchange for Transport Documents (EDI) within the framework of Comité Maritime International *Rules for Electronic Bills of Lading* 1990 (CMI Rules).⁴³ Laryea also considers technical assistance to countries with less developed electronic infrastructure as an important part of the solutions to the challenges of electronic

³⁶ET Laryea, *Paperless Trade: Opportunities, Challenges and Solutions* (The Hague: Kluwer Law International, 2003).

³⁷*Supra* note 10.

³⁸SC Chukwuma, “Can the Functions Of A Paper Bill Of Lading Be Replicated By Electronic Bill Of Lading?” (2013) 3:8 Public Policy and Administration Research 101.

³⁹A Elentably, “The Advantage of Activating the Role of the EDI-Bill of Lading And its Role to Achieve Possible Fullest” (2012) 6:4 International Journal on Marine Navigation and Safety of Sea Transportation 595.

⁴⁰HM Kindred, “Trading Internationally by Electronic Bills of Lading” (1992) 7 Banking & Finance Law Review 265.

⁴¹*Supra* note 36 at 6; *supra* note 38 at 103; *supra* note 10 at 438 respectively.

⁴²*Supra* note 40.

⁴³Comité Maritime International *Rules for Electronic Bills of Lading* 1990 (CMI Rules).

commerce in our modern information society.⁴⁴ Elentably insists that there is nothing new about the electronic transfer of documents. According to him, it is only the legal rights and obligations arising from such transfers that have put existing conventional legal principles under pressure.⁴⁵ He advises that entering into properly drafted exchange agreements on electronic transfers of documents could save parties the common technical and legal headaches associated with such transfers.⁴⁶

Oyewunmi,⁴⁷ Saulawa and Marshal,⁴⁸ and Abubakar⁴⁹ discuss the problems and prospects of electronic commerce in Nigeria. They make it clear that electronic commerce in Nigeria is still in its infancy, and is basically in relation to banking and electronic payments. The challenges of electronic commerce in Nigeria as identified by the authors include: lack of an efficient legal and regulatory framework that will accord the same recognition to electronic bills of lading as enjoyed by the paper bills of lading; lack of sufficient electronic infrastructure and dearth of the necessary human resources to establish and maintain such infrastructure. Cybercrime is also identified as a serious problem hampering electronic commerce in Nigeria.

It is clear that the failure of the electronic bill to replace its paper counterpart has essentially been a result of security concerns, lack of evidentiary value across different jurisdictions, lack of negotiability, uncertainty regarding risks and liability, failure to satisfy writing and signature requirements, lack of necessary technological infrastructure in developing countries, and lack of confidence and conservatism of traders and other stakeholders.⁵⁰

⁴⁴*Supra* note 36 at 7.

⁴⁵*Supra* note 39 at 598.

⁴⁶*Ibid.*

⁴⁷AO Oyewunmi, "The ICT Revolution and Commercial Sectors in Nigeria: Impacts and Legal Interventions" (2012) 5:2 British Journal of Arts and Social Sciences 234.

⁴⁸MA Saulawa & JB Marshal, "The Relevance of Electronic Signatures in Electronic Transactions: An Analysis of Legal Framework" (2015) 34 Journal of Law, Policy and Globalization 5.

⁴⁹AS Abubakar, "Analysis of Electronic Transactions Bill in Nigeria: Issues and Prospects" (2014) 5:2 Mediterranean Journal of Social Sciences 215.

⁵⁰*Supra* note 38 at 101-3.

Expectedly, the confusion thrown upon the commercial world by the revolutionary growth in information and communication technology including the functional inadequacies of the electronic bill of lading has forced stakeholders such as the International Institute for the Unification of Private Law (UNIDROIT), the United Nations Commission on International Trade Law (UNCITRAL) and the Hague Conference on Private International Law to launch initiatives aimed at producing legal frameworks and standards that accommodate the advances in the information and communication technology sector.⁵¹ The results of such international initiatives include the UNCITRAL *Model Law on Electronic Commerce*, 1996 (MLEC)⁵² as well as the UNCITRAL *Model Law on Electronic Signatures* 2001 (MLES).⁵³ At the national level, many countries have also intensified efforts to update their individual legal regimes on electronic commerce.⁵⁴

Apart from efforts at fashioning appropriate legal frameworks, concerned stakeholders have also set up innovative technical systems and arrangements designed to close the functional gaps between electronic bills of lading and their paper counterparts. Such systems include the Chase Manhattan Bank's Seaborne Trade Documentation System (SeaDocs) Project, the Comité Maritime International (CMI) Rules and the Bolero Project.⁵⁵

⁵¹JK Winn, "Emerging Issues in Electronic Contracting, Technical Standards and Law Reform" (2002-3) Rev. dr. unif. 699 at 699.

⁵²UNCITRAL, *Model Law on Electronic Commerce*, GA Res 51/162, GAOR 51st sess, 85th plen mtg, UN Doc A/Res/51/162 (1996) (with additional article 5bis as adopted in 1998 and Guide to Enactment) (MLEC).

⁵³UNCITRAL, *Model Law on Electronic Signatures*, GA Res 56/80, GAOR 56th sess, 85th plen mtg, UN Doc A/Res/56/80 (2001) (MLES).

⁵⁴See e.g. *Personal Information Protection and Electronic Documents Act* (S.C. 2000, c. 5) (PIPEDA) (Canada); *Electronic Communications Act 2000* (UK), c 7; *Electronic Transactions Act 1999* (Cth); *Electronic Transactions Act 2002* (NZ), 2002/35; *Electronic Transactions Act* (Cap 88, 2010 Rev Ed Sing; *Electronic Communication and Transactions Act* (S Afr) No 25 of 2002; *Uniform Electronic Transactions Act*, (1999) (UETA) (USA) and *Electronic Transactions Bill 2015* (ETB) (Nigeria).

⁵⁵*Supra* note 10 at 449. While the SeaDocs Project is managed by a London based SeaDocs Registry Ltd on the joint initiative of Chase Manhattan Bank and the International Association of Independent Tanker Owners (INTERTANKO), Bolero Project is an initiative of the International Chamber of Commerce (ICC) and is jointly owned by the Through Transport Club (TTC) and the Society for Worldwide Inter Bank Financial Telecommunications (SWIFT). The CMI *Rules for Electronic Bills of Lading* 1990 are an addition to the United Nations *Rules for Electronic Data Interchange* (UN/EDIFACT).

Despite efforts by various stakeholders in the shipping industry to establish an effective system of electronic maritime contracting, to date, it has not been possible to completely surmount all the challenges associated with electronic bills of lading. The two functions of serving as receipts for goods shipped and as evidence of the sea carriage contract have been effectively replicated in electronic settings within the framework of traditional legal rules. This is due to the fact that these functions necessarily involve mere recording and/or transfer of information.⁵⁶ This has not been the case with respect to the document-of-title function.⁵⁷ Some authors have, however, according to Emmanuel, predicted that with time, electronic bills will become negotiable through the custom of merchants.⁵⁸ Such optimism may not be much of a consolation when it is remembered that commercial practices take a long while to mature.⁵⁹

Effective legislation⁶⁰ or other appropriate legal and electronic infrastructure that might or could give the electronic bill of lading a collateral security capacity in favour of banks and other international business financiers may provide a better mechanism for achieving functional equality between electronic and paper bills.⁶¹ Such effective legal and technical mechanisms will even help in fostering commercial practices that can reverse the current trend of unacceptability and unmarketability of document-of-title features of electronic bills to some shipping interests.⁶² Securing and sustaining the confidence of shipping interests in the electronic bills by establishing a system that guarantees the authenticity and integrity of electronic bills and data should therefore form a significant part of the efforts of all stakeholders.⁶³ This need has led to the idea and practice of a

⁵⁶See generally *supra* note 10 at 448.

⁵⁷See generally *ibid* at 442; M Goldby, "Legislating to facilitate the use of electronic transferable records: A case study - Reforming the law to facilitate the use of electronic bills of lading in the United Kingdom" (Paper prepared for the UNCITRAL Colloquium on Electronic Commerce held in New York, 14 -16 February 2011) at 4.

⁵⁸*Supra* note 36 at 74.

⁵⁹*Supra* note 10 at 447.

⁶⁰*Ibid*.

⁶¹*Ibid* at 449.

⁶²*Ibid* at 447.

⁶³*Ibid*.

registry system in regard to electronic transfers or negotiation of title or right in the goods represented in or by the electronic bill.⁶⁴ The third-party model of the registry system affords each party equal access to the data structure and allows for verification of the authenticity of possession of electronic bills and their transfers using verifiable techniques.⁶⁵ For effective transfers and negotiation of electronic bills of lading, the registry system or practice must satisfy the singularity requirement prescribed in Article 17(3) of the MLEC⁶⁶ by operating in such a manner that each time there is issuance or transfer of an electronic bill, a record is made in a register of the name of the person to whom it is issued or transferred, with a corresponding entry in the register showing that person to be the holder of the bill.⁶⁷

As demonstrated above, there is much literature on the failure of electronic documents and bills of lading to achieve functional equivalence with their paper counterparts. But even then, none of those materials can lay a legitimate claim to exhaustive treatment of all issues relevant to electronic bills of lading, nor do they provide all the necessary answers to the issues raised in this research. This is more so since the focus of this thesis is a consideration of the implications of the challenges of the electronic bill of lading for Nigeria, viewed within the context of the UK's and Canadian electronic commerce regimes and practices, and the broader context of other relevant international regimes and frameworks.

1.3 Research Questions

The main focus of this work is to investigate the extent to which an electronic bill of lading has succeeded or failed in replacing its paper counterpart with particular reference to the Nigerian electronic commerce regime and/or practices. More than 29 years after the

⁶⁴See generally *supra* note 11 at 139.

⁶⁵RE Kahn & PA Lyon, "Representing Value as Digital Objects: A Discussion of Transferability and Anonymity" (2006) 5 Journal On Telecommunications and High Technology Law 189 at 190.

⁶⁶*Supra* note 34 at 125-6.

⁶⁷*Ibid* at 126.

launching of the SeaDocs Project in 1986 as the first commercial project for an EDI,⁶⁸ many carriage of goods by sea transactions are still effected by traditional paper documents, including the paper bill of lading. This is particularly true of Nigeria, which, apart from the general legal inadequacies, does not have sufficient electronic infrastructure that are necessary for efficient electronic commerce. What then are the implications for Nigeria of the emergence of electronic bills of lading as a key legal document in maritime transactions? Finding answers to this question will constitute the main agenda of this research.

The research questions stated above will be addressed using the comparative approach. It will consider the strengths and failings of the Nigerian electronic commerce regime within the context of the law and policy frameworks of the UK and Canada. At any rate, since shipping and electronic commerce are in a manner of speaking human activities without borders, relevant laws and issues arising in the international environment for successful and complete dematerialization of transport documents will also be duly considered. References will therefore be made, where necessary, to relevant laws of other jurisdictions and to the model laws of the UN and its relevant agencies. Also, analysis of the adequacies or otherwise of the various laws and rules under review, as well as a discussion of desirable steps to achieve more effective dematerialization of the bill of lading, will be undertaken. There will also be an examination of the various strengths and weaknesses of the efforts made to date by various stakeholders in reducing or eliminating the technical obstacles to effective substitution of paper bills of lading with electronic ones.

1.4 Methodology and Materials

1.4.1 Comparative Methodology

There have been controversies as to the extent if any, of the contributions of comparative scholarship to law reform and legal theory. Hill asserts that comparative legal scholarship is bereft of any in-depth contributions to legal knowledge and legal revisions and reforms

⁶⁸A Delmedico, "EDI Bills of Lading: Beyond Negotiability" (2003) 1:1 Hertfordshire Law Journal 95 at 96.

beyond pedestrian demonstration of similarities and differences between or among legal systems or jurisdictions.⁶⁹ In his view:

...it is fair to say that comparative law has been a somewhat disappointing field. For the most part, it has consisted of showing that a certain procedural or substantive law of one country is similar to or different from that of another. Having made this showing, no one knows quite what to do next.⁷⁰

Much as I do not agree with Hill's extreme assertion that comparative legal scholarship has little or no utilitarian worth, I also reject Watson's simplistic argument that legal transplants between or among jurisdictions, as the essence of comparative law in its practical conception,⁷¹ are socially easy.⁷² Such a simplistic view ignores what Grossfeld and Eberle have creatively termed the invisible powers of legal orders.⁷³ Such invisible powers include but are not limited to, geography, history, the personal convictions, attitudes, and general background of the interpreter or translator in regard to interpretation and translation, folklore, writing, numbers, counting circles, language and religion.⁷⁴

To escape the harsh criticisms levelled against comparative legal scholarship by writers like Hill, this work must take account of both visible patterns (dry letters and words) of the Nigerian, Canadian and UK's ecommerce regimes and practices and the invisible powers of the legal cultures of these jurisdictions. This is necessary since legal formulations do not hang in the air, but have their foundations in socio-cultural consciousness of the society concerned.⁷⁵ This approach is underscored by a strict fidelity

⁶⁹J Hill, "Comparative Law, Law Reform and Legal Theory" (1989) 9 Oxford J. Legal Stud. 101 at 102.

⁷⁰*Ibid.*

⁷¹See generally A Watson, "Comparative Law and Legal Change" (1978) 37:2 Cambridge Law Journal 313.

⁷²A Watson, *Legal Transplants: An Approach to Comparative Law*, 2nd ed (Georgia, GA: University of Georgia Press, 1993) at 95.

⁷³See generally B Grossfeld & EJ Eberle, "Patterns of Order in Comparative Law: Discovering and Decoding Invisible Powers" (2003) 38 Texas International Law Journal 291.

⁷⁴*Ibid.*

⁷⁵*Ibid.*

to the admonitions of Grossfeld and Eberle regarding the invisible patterns of legal orders⁷⁶ as well as an understanding of law as a superstructure⁷⁷ that only reflects some underlying variables.⁷⁸

Invisible powers regarding the e-commerce regimes of these countries include the fact that they all have different political arrangements: while Nigeria operates a Federal Constitution with little devolution of power to the component units,⁷⁹ much authority is granted to the constituent provinces in Canada, though Canada is not just a confederation but exemplifies true federalism.⁸⁰ On the other hand, although, there is greater devolution of power in UK now than previously,⁸¹ it essentially operates a unitary system of government.⁸² Furthermore, Canada and the UK are more technologically advanced than Nigeria, and this might affect the extent to which specific relevant electronic legislation and business frameworks are considered a priority or a matter of urgency. Accordingly, as part of this comparative study, the impact of their different stages of technological advancement on their legal regimes on electronic commerce and electronic bills of lading will be taken into account. While the UK and Canada have enacted general and specific legislation on electronic commerce, Nigeria adopted its first legislation on electronic commercial transactions in 2015. It is yet to receive presidential assent and does not apply to bills of lading.⁸³ The impact of comparative lack of legislative intervention by the

⁷⁶*Ibid.* See generally also SC Hicks, “The Jurisprudence of Comparative Legal Systems” (1983) 6 Loy. L.A. Int’l & Comp. L. Rev. 83.

⁷⁷See generally A Stone, “The Place of Law in the Marxian Structure-Superstructure Archetype” (1985) 19:1 Law & Society Review 39.

⁷⁸See generally SC Hicks, *supra* note 76.

⁷⁹See generally AA Ikein, DSP Alamiyeseighe & S Azaiki, *Oil, Democracy, and the Promise of True Federalism in Nigeria* (Lanham, Maryland: University Press of America, 2008).

⁸⁰JE Magnet, *Constitutional Law of Canada*, 9th ed (Edmonton, Alberta: Juriliber Limited, 2007) at 82; PW Hogg, *Constitutional Law of Canada* (Toronto, Ontario: Carswell, 2014) at 12-4.

⁸¹C Turpin, *British Government and the Constitution, Text, Cases and Materials*, 5th ed (London: Butterworths, 2002) at 262-5.

⁸²*Ibid* at 257.

⁸³See e.g. PIPEDA, *supra* note 54; *Electronic Transaction Act*, R.S.A. 2000, c. E-5.5; *Electronic Transaction Act*, S.B.C. 2001, c. 10; *The Electronic Commerce and Information Act*, C.C.S.M. c. E55; *Electronic Transaction Act*, S.N.B. 2001, c. E-5.5; *Electronic Transaction Act*, S.N.S. 2000, c. 26; *Electronic Transaction Act*, 2000, S.S. 2000, c. 17 etc. For the UK, see the *Electronic Commerce (EC Directive) Regulations* 2002, SI 2002/2013 (EC Regulations) while the Nigerian National Assembly only

Nigerian legislature appears to have been ameliorated by the Nigerian judiciary's activist and progressive interpretation of conventional legal principles to accommodate ongoing technological evolution.⁸⁴ Similarly, while the UK is a member of the European Union (EU), which is a supranational regulatory organization, both Nigeria and Canada do not belong to any such grouping. This explains why the European Commission's (EC) *EC, Commission Directive* (EC Directive)⁸⁵ has been made applicable to the UK by virtue of the *EC, Commission Regulation* (EC Regulation).⁸⁶ There are also cultural and religious differences between Nigeria and the UK and Canada. The influences of the diverse religions, cultures and folklores in Nigeria on the Nigerian legal regime must not be underestimated.⁸⁷

As comforting and inspiring as the admonitions of Grossfeld and Eberle⁸⁸ and other apologists of comparative legal scholarship may be, their suggestion that invisible powers of legal orders must be taken into account in comparative law analysis comes with an inherent weakness. For example, how do I determine the extent, if any, to which the western culture of near absolute insistence on individual rights, as against Nigeria's greater communal spirit, constitutes the invisible powers of Canadian or UK's e-commerce legal rules and ideas?

At any rate, it would seem that, in the ultimate analysis, the best way to approach the debate about the contributions of comparative law to legal scholarship is to adopt the

recently passed the ETB, *supra* note 54 which is yet to receive presidential assent. Besides, the ETB, by virtue of its Section 12 does not apply to bills of lading.

⁸⁴See the case of *Esso West Africa Inc. v T. Oyegbola* (1969) 1 NMLR 194 where Nigeria's Supreme Court stated obiter that "The law cannot be and is not ignorant of modern business methods and must not shut its eyes to the mysteries of the computer". This decision was followed in subsequent cases including *Elizabeth Anyaebosi v R. T. Briscoe* (1987) 3 NWLR (Pt 59) 84 at 96-7 where statements of account, stored in and reproduced from a computer were admitted in evidence.

⁸⁵2000/31/EC of 8 June 2000 regulating certain aspects of information services, in particular electronic commerce in the internal market, 2000 OJ, L178/1(EC Directive).

⁸⁶See the EC Regulations, *supra* note 83.

⁸⁷See generally UF Abdullahi, "Inter Relations Between Common Law and Sharia Law" (Paper delivered at the International Society for the Reform of Criminal Law, Vancouver, Canada, 22-26 June 2007) [unpublished].

⁸⁸*Supra* note 73 at 315-6.

reasoning of Birnbaum, that a piece of legal scholarship need not be a tree with fruits before it is accepted as adding some value to legal knowledge.⁸⁹ It could have been planted to prevent erosion or perhaps to serve ornamental or beautification purposes.⁹⁰

Within the context of the comparative approach to the issues and questions discussed in this research, an analysis of both primary and secondary sources of law is adopted. Although, there is very little case law on the subject, particularly in Nigeria, relevant judicial decisions on general principles of law are extrapolated where necessary. With respect to secondary sources, a review of existing literature on international shipping, bill of lading and electronic commerce, including textbooks, theses, institutional reports and directives, conference papers, seminars and internet materials is undertaken.

Apart from the impact of differences in technological developments and political and constitutional power structures among Nigeria, Canada and the UK discussed above which are incidentally the underlying reasons for differences in electronic commerce regimes across the globe, the three were chosen for the comparative study because they all have common socio-political history in that Nigeria and Canada were both colonized by the UK.⁹¹ The legal systems of the three countries have their roots in the English common law, except for the province of Quebec in Canada whose laws have roots in the French civil law system.⁹² The three are all coastal and trading States with similar experience and interests in efficient handling of transport documents. The authority to legislate in respect of the bill of lading essentially resides with central authorities in the three countries,⁹³ and there is common use of the English language for official business, including in the courts.

⁸⁹See generally R Birnbaum, "Policy Scholars are from Venus; Policy Makers are from Mars" (2000) 23:2 The Review of Higher Education, 119.

⁹⁰*Ibid.*

⁹¹See generally G King, RO Keohane & S Verba *Designing Social Inquiry: Scientific Inference in Qualitative Research* (Princeton, NJ: Princeton University Press, 1994) at 205.

⁹²P Naylor, *Business Law in the Global Marketplace: The Effects on International Business* (London, UK: Routledge, 2006) at 9.

⁹³See for instance the *Constitution of the Federal Republic of Nigeria*, 1999, Second Schedule, Part 1, Exclusive Legislative List; E Gold, A Chircop & H Kindred, *Maritime Law* (Toronto, Ontario: Irwin Law Inc, 2003) at 111-3.

Since discreet legal transplants between or among jurisdictions have been identified as the essence of comparative law in its practical conception,⁹⁴ I will adopt a “quasi-functional” comparative law approach by which the focus of the work will equally be on the functions that e-commerce regimes in Nigeria, Canada and the UK serve and their effects on business relations in these jurisdictions, rather than placing emphasis solely on legal rules and doctrinal structures.⁹⁵

The research argues that much as there is no specific requirement as to the mode of formation of contract under the Nigerian legal system as in Canada and the UK,⁹⁶ there is the urgent need for legislative interventions to fashion an effective legal regime that provides the procedural and safeguard equivalents that can enjoy the double mandate of satisfying the electronic-specific requirements of electronic transactions without any prejudice to substantive legal rules applicable to the specific transactions concerned.⁹⁷ Alternatively, in jurisdictions such as Canada and the UK and indeed Nigeria in which there is presently no legal validation of the replication of the negotiability feature in the electronic bill of lading, the registry system, which, by affording a sufficient “guarantee of singularity” or “exclusive control of electronic transport records,” can successfully replicate the document-of-title function of the paper bill of lading in the electronic environment is often the best option.⁹⁸

The study will assist Nigeria in fashioning its own electronic and legal infrastructure by way of discreet legal adaptations or transplants of relevant Canadian and the UK e-commerce regimes and business practices. It will also assist in harmonization of international rules and practices relating to electronic documents, particularly electronic bills of lading.

⁹⁴*Supra* note 71.

⁹⁵See generally M Ralf, “The Functional Method of Comparative Law” (2005) Duke Law School Faculty Scholarship Series 26.

⁹⁶See generally also Scassa & Deturbide, *supra* note 2 at 5-9.

⁹⁷*Supra* note 1 at 5.

⁹⁸*Supra* note 34 at 126.

1.4.2 Structure of the Thesis

The present Chapter 1 has provided a general introduction to the thesis. It has set out the research questions and scope of the research and further explains the methodology adopted to answer the research questions and achieve the aims of the thesis. Chapters 2 to 6 constitute the body of the thesis. Chapter 2 examines the origins and contemporary context of the bill of lading as well as its functions in international trade. The advantages and disadvantages of the paper bills of lading and other forms of transport documents used in international trade are also discussed in this chapter. Also covered under Chapter 2 are the nature and challenges of the bill of lading as an electronic document, particularly the challenge of its negotiability, and the international and the three national responses to it. Chapter 3 discusses the electronic contract of carriage and the challenges which are common to all electronic documents with particular reference to electronic bills of lading and the legal responses to them. Admissibility and evidential value of electronic communications and/or documents are among the issues covered in this chapter. While Chapter 4 analyses the technical efforts made so far by various stakeholders in the maritime industry to solve the myriad of problems affecting electronic documents and electronic bills of lading, Chapter 5 presents Nigeria as a case study and looks at the options open to Nigeria in tackling the challenges faced by electronic bills of lading with Canada and the UK serving as points of reference. Chapter 6 concludes the work with the position that, although much has been achieved to ensure functional equivalence of the electronic bills of lading with their paper counterparts, greater tasks lie ahead.

Chapter 2: The Bill of Lading

2.1 Origins and Contemporary Context of the Bill of Lading

A brief historical account of the development of the bill of lading over the years will put the electronic bill of lading in its historical context and contemporary setting as the most recent phase in the continuous evolution of this commercial instrument. The bill of lading in the form in which we know it today is a result of many years of gradual development dictated by the practical needs of merchants over time.¹ The modern bill of lading had its humble beginning in the business practices and customs of merchants in the Italian city-states of the eleventh century.² The ship's register was used prior to the 14th century to record what cargo the ship contained.³ The ship's register was a necessity created by the growing trade between the ports of the Mediterranean in the 11th century whereby the need to keep efficient records of the shipment of goods resulted in the development of the practice of a ship's mate keeping record of the movement of goods in a register.⁴ The use of the ship's register though initially informal, over time received some statutory blessings.⁵ To ensure the accuracy and reliability of the register, a statute was passed around 1350 which tied the credibility of the register and the information therein to the register being within the exclusive custody and possession of the ship's clerk.⁶ The statute further placed the ship's clerk under the pain of losing his right hand, having his forehead marked with a branding iron and all his goods confiscated for any false entries in the register, whether made by him or someone else.⁷

¹UNCTAD *Report on Bills of Lading* UNCTADOR 1971 TD/B/C4/ISL/6/Rev 1 at 10.

²*Ibid.*

³B Svensson, *Electronic Bill of Lading* (LLM Thesis, Lund University Faculty of Law, 2010) [unpublished] at 7.

⁴R Aikens, R Lord & M Bools, *Bills of Lading* (London, UK: Informa Law, 2006) at 1.

⁵*Ibid.*

⁶*Ibid.*

⁷*Ibid.*

The use of on-board records in the fourteenth century introduced the receipt function of the bill of lading with respect to the goods shipped.⁸ It would appear that because shippers still accompanied the goods on board the vessel to their ports of discharge, there was no motivation for a separate record of the goods loaded.⁹ The document was a mere receipt and its possession did not confer ownership of the goods on the shipper.¹⁰ It was also not transferable.¹¹ It is however fair to say that the need for transferability did not exist at this time since there was no intention to resell the goods in transit.¹²

The bill of lading acquired the feature of transferability in the sixteenth century when it became part of the proceedings of the English High Court of Admiralty,¹³ and valid possession of the bill entitled the holder to the goods represented in or by it.¹⁴ But even then, it was still not very common to resell goods while in transit.¹⁵ It seems that the gain in the transferability function arose from a shift in trading practices.¹⁶ The need for transferability arose from the fact that, shippers began to dispatch their cargoes without knowing their final destinations.¹⁷ Thus, unlike the bills of the earlier centuries, neither the 16th century bills nor the ship's register indicated the ultimate receivers of the goods.¹⁸

It was also during the 16th century that the bill started to perform its contractual function.¹⁹ As would be expected in a transitional period, there were two different

⁸*Supra* note 3 at 7.

⁹*Supra* note 4 at 1.

¹⁰*Supra* note 3 at 7.

¹¹*Ibid.*

¹²*Ibid.*

¹³*Supra* note 4 at 3.

¹⁴*Supra* note 3 at 7.

¹⁵*Ibid.*

¹⁶*Supra* note 4 at 3.

¹⁷*Ibid.*

¹⁸*Ibid.*

¹⁹*Ibid* at 3-4.

categories of the bill in relation to the contractual functions.²⁰ There were those whose terms made reference to a charterparty, either because they were meant to make the terms of the charterparty a part of the bill of lading contract or because the carriage was solely subject to the terms of the charterparty.²¹ Then, there was the second category which constituted the carriage agreements between the carrier and the shipper, because their terms solely governed the carriage contract without reference to any external terms.²² However, most of the bills of lading of this period were issued to shippers who were also signatories to charterparties.²³

The document-of-title function of the bill of lading was developed in the first half of the nineteenth century.²⁴ In 1806, the bill of lading was described *obiter* by Lord Ellenborough as representing actual possession of the goods.²⁵ However, it was clear from the subsequent cases of *Sargent v Morris*²⁶ and *Pattern v Thompson*²⁷ that the bill of lading was still incapable at that time of conferring the right of legal possession to the goods shipped in the holder.²⁸ While *Sargent v Morris* proves that, as recent as 1820, possession of the bill of lading in the hands of a consignee did not constitute symbolic possession of the goods covered by the bill, *Pattern v Thompson* shows that the fate of his endorsee was not any better.²⁹ One of the significant contributions of English law to the development of the bill of lading was the statutory grant of document-of-title feature or function to the bill of lading.³⁰ In 1842, the English Parliament passed a statute, a provision of which deemed all documents of title including the bill of lading as conferring on their holders the right of

²⁰*Ibid.*

²¹*Ibid.*

²²*Ibid.*

²³*Ibid.*

²⁴*Ibid* at 8.

²⁵*Newsome v Thornton* (1806) East 17, cited in *ibid.*

²⁶(1820) 2 B & Ald. 277, cited in *supra* note 4 at 8-9.

²⁷(1816) 5 M. & S. 350, cited in *supra* note 4 at 8-9.

²⁸*Supra* note 4 at 8-9.

²⁹*Ibid.*

³⁰*Ibid.*

legal possession of goods to which they related.³¹ The capacity of the bill of lading to confer on its holder the right of symbolic possession of goods to which it relates was confirmed in a landmark case by the English courts in 1870.³²

The integrity of the traditional bill of lading to continue to efficiently serve the needs of the international shipping industry suffered some setbacks in the early 1960s as a result of modern, advanced and faster shipping without corresponding improvements in the international postal services.³³ Thus, whereas the use of modern and containerized ships led to faster handling of goods at the various terminals and consequently their early arrival at their ports of discharge, the inefficient international postal services, coupled with delays arising from the verification of shipping documents by banks for purposes of documentary credit, resulted in the bills of lading arriving at the destination ports long after the goods had arrived.³⁴ This resulted in delays in delivery, port congestion and additional charges in the form of demurrage.³⁵ A combination of these shortcomings of the traditional bill of lading and the increased incidents of electronic transactions since the 1990s,³⁶ jolted the international shipping community to the need for an electronic bill of lading. The end result of the awaking was the launching of the SeaDocs in 1986 into the open market as the first commercial project for an electronic data interchange for transport documents (EDI) as well as the passage in 1990 of the Comité Maritime International *Rules for Electronic Bills of Lading* 1990 (CMI Rules) by the Comité Maritime International (CMI).³⁷ Ever since then, it has been one of the pre-occupations of the

³¹*Factors Act, 1842* (UK) 5 & 6 Vict, c 39, s 4.

³²*Barber v Meyerstein* (1870) L.R. 4 H. L. 317.

³³*Supra* note 3 at 8.

³⁴AN Yiannopoulos, "General Report" in AN Yiannopoulos ed, *Ocean Bills of Lading: Traditional Forms, Substitutes, and EDI Systems* (The Hague: Kluwer Law International, 1995) 3 at 21.

³⁵*Ibid.*

³⁶RJ Mann, *Electronic Commerce*, 2nd ed (New York, NY: Aspen Publishers, 2008) at 1; FF Wang, *Law of Electronic Commercial Transactions: Contemporary Issues in the EU, US and China*, 2nd ed (Oxford, UK: Routledge, 2014) at 3.

³⁷A Delmedico, "EDI Bills of Lading: Beyond Negotiability" (2003) 1:1 Hertfordshire Law Journal 95 at 95-7; Yiannopoulos *supra* note 34 at 22.

shipping stakeholders to effect a complete dematerialization of the bill of lading and its function, particularly its document-of-title function.³⁸

For many years, the carriers, who traditionally, were in a superior bargaining position in relation to the shippers, pushed the limits of the principle of freedom of contract to an abusive point by insisting on terms that virtually exempted them from their traditional common law liabilities.³⁹ At the turn of the 20th century, the international community, recognised the need for a fairer allocation of risks in international maritime transactions, and moved to harmonize various relevant national laws by negotiation and enactment of the *International Convention for the Unification of Certain Rules Relating to Bills of Lading* of 25 August 1924 [Hague Rules]⁴⁰ as the first ever international convention relating to the bill of lading.⁴¹ Even then, the view that the Hague Rules were not sufficiently protective of cargo interests, coupled with increased containerization of sea transport, resulted in an amended or a new international regime relating to the bill of lading, the *International Convention for the Unification of Certain Rules Relating to Bills of Lading* of 25 August 1924 as Amended by the 1979 *Protocol to Amend the International Convention for the Unification of Certain Rules Relating to Bills of Lading as Modified by the Amending Protocol* of 23 February 1968 [Hague-Visby Rules].⁴² The perceived need to further redress existing imbalance between the interests of the shippers on the one hand, and those of the carriers on the other hand, led to the negotiation and implementation of a subsequent international regime on sea transport, the *United Nations Convention on the*

³⁸*Ibid.*

³⁹T Nikaki & B Soyer, "A New International Regime for Carriage of Goods by Sea: Contemporary, Certain, Inclusive And Efficient, or Just Another One for the Shelves?" (2012) 30:2 Berkeley J. Int'l Law 303 at 303.

⁴⁰*International Convention for the Unification of Certain Rules Relating to Bills of Lading*, 25 August 1924, 120 UNTS 155 (entered into force 2 June 1931) [Hague Rules].

⁴¹*Supra* note 39 at 303-4

⁴²*International Convention for the Unification of Certain Rules Relating to Bills of Lading*, 25 August 1924, 120 UNTS 155 (entered into force 2 June 1931) and the 1979 *Protocol to Amend the International Convention for the Unification of Certain Rules Relating to Bills of Lading as Modified by the Amending Protocol* of 23 February 1968 [Hague-Visby Rules].

Carriage of Goods by Sea of 31 March 1978 [Hamburg Rules]⁴³ which was adopted in Hamburg in 1978. The Hamburg Rules have not been adopted by the major shipping nations and have therefore failed to achieve global uniformity in international sea carriage regime which informed their drafting and implementation.⁴⁴ The failure of the Hamburg Rules regime to provide a uniform replacement for the Hague-Visby Rules, and the desire for a regime that would accommodate the demands of modern international shipping practices, particularly electronic documentation,⁴⁵ resulted in yet another new international sea carriage convention, the *Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea* of 11 December 2008 [Rotterdam Rules],⁴⁶ formally adopted in 2008 by the General Assembly of the United Nations.⁴⁷

It is ironic that the various international conventions on international sea carriage, each of which was primarily conceived as a unifying instrument to achieve global uniformity in the application of rules relating to sea transport, have only served to deepen the fragmentation of international regimes on international shipping applicable across different jurisdictions.⁴⁸ While the Hamburg Rules are applicable to Nigeria by virtue of the *United Nations Convention on Carriage of Goods by Sea (Ratification and Enforcement) Act* of 2005 (Hamburg Rules Act),⁴⁹ the Hague-Visby Rules are made applicable to Canada by the provisions of Section 43 of the *Marine Liability Act* (MLA).⁵⁰

⁴³*United Nations Convention on the Carriage of Goods by Sea*, 31 March 1978, 1695 UNTS 3 (entered into force 1 November 1992) [Hamburg Rules].

⁴⁴*Supra* note 39 at 304.

⁴⁵See generally J Adamsson, *The Rotterdam Rules, A transport convention for the future?* (LLM Lund University, 2011) [unpublished].

⁴⁶The *Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea* 11 December 2008, 63 UNTS 122 [Rotterdam Rules].

⁴⁷*United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*, GA Res 63/122, UNGAOR 63rd Sess, U.N. Doc. A/RES/63/122 (Dec. 11, 2008). See also United Nations Comm'n on Int'l Trade Law, *Report of the United Nations Commission on International Trade Law, 41st Session*, para 298, Annex I, U.N. GAOR, 63rd Sess., Supp. No. 17, U.N.Doc. A/63/17 (July 3, 2008); *supra* note 45 at 305.

⁴⁸DN Metuge, *Carriage of Goods by Sea – From Hague to Rotterdam: Safer Waters* (LLM Thesis, Nelson Mandela Metropolitan University Faculty of Law, 2012) [unpublished] at 5-6.

⁴⁹See the *United Nations Convention on Carriage of Goods by sea (Ratification and Enforcement) Act* No. 19 of 2005 (Hamburg Rules Act).

⁵⁰*Marine Liability Act* (S.C. 2001, c. 6), s 43 (MLA).

Similarly, it is the Hague-Visby Rules that are applicable in UK.⁵¹ Although none of the UK, Canada or Nigeria has ratified the Rotterdam Rules, Nigeria signed the Rotterdam Rules on 23rd September, 2009.⁵² The Rotterdam Rules are yet to enter into force because the requisite twenty countries have not yet ratified them in order for them to become operational.⁵³

2.2 Functions of the Bill of Lading in International Trade

2.2.1 Receipt for the Goods

As already stated, the significance of the bill of lading lies in its functions in commercial transactions.⁵⁴ Historically, the receipt function is the first to emerge in the form of a “ship’s register” as a result of the practical needs of merchants at a time when merchants no longer travelled with their goods, but rather sent same to their correspondents at the destination ports.⁵⁵ In the performance of its receipt function, the bill of lading contains information or details about the condition and quantity of the goods received for shipment.⁵⁶ It will also contain among other things details as to date of receipt of the goods and description of the goods as to quality, weight, condition and leading marks for identification, the date of loading, the identity of the carrying vessel as well as the loading and discharge ports.⁵⁷ The bill of lading will normally be issued based on the information contained on the “mate’s receipts”, which are the ship’s records of the goods loaded and presented to the carrier or its agent for signature.⁵⁸ A bill of lading issued by the carrier or

⁵¹Styld *Mercury XII (Ship) v MLT-3 (Belle Copper No. 3)*, 2013 FCA 96; M Bundock, *Shipping Law Handbook*, 5th ed (London, UK: Informa Law, 2011) at 274-5.

⁵²LS Pallares, “The Rotterdam Rules: Between Hopes and Disappointment” (2009) II(2) Mexican Law Review 125 at 126.

⁵³Rotterdam Rules, *supra* note 46 art 94(1). See generally *supra* note 45.

⁵⁴*Supra* note 4 at 14.

⁵⁵M Goldby, *Electronic Documents in Maritime Trade: Law and Practice* (Oxford, UK: Oxford University Press, 2013) at 89.

⁵⁶*B. M. Ltd. v Woermann-Line* (2009) 13NWLR (Pt. 1157) 149 at 178, *E*.

⁵⁷S Baughen, *Shipping Law*, 3rd ed (London, UK: Cavendish Publishing Limited, 2004) at 5; Hague-Visby Rules, art 3(3); Hamburg Rules, art 15(1).

⁵⁸*Ibid*.

its agent in respect of goods received for shipment but before such goods were loaded on a vessel or shipped is called “received for shipment bill”.⁵⁹ Where however, the bill of lading relates to goods which have been loaded or shipped on a named vessel, it is called “shipped bill”.⁶⁰ At common law, the bill of lading is *prima facie* evidence of its contents as between the carrier and shipper. The contents of the bill are therefore rebuttable by contrary proof in such a circumstance.⁶¹ However, as between the carrier and a third party (an endorsee of the bill), the bill is conclusive evidence of its contents provided the third party acted in good faith,⁶² to his detriment.⁶³ Under the Hague-Visby Rules⁶⁴ and the Hamburg Rules,⁶⁵ the carrier has an obligation to issue a bill upon demand by the shipper in respect of the goods which are the subject matter of the sea carriage contract.⁶⁶ It is interesting to note that while Article III(3) of the Hague-Visby Rules uses the word “shall” in relation to the carrier’s obligation to issue the shipper with a bill upon the latter’s demand, the provision of Article 15(1) of the Hamburg Rules employs “must”.⁶⁷ Although, this may not be the case elsewhere, in Nigeria, the use of the word “shall” in a statute does not necessarily import mandatory obligation and has in fact been interpreted as importing permissiveness.⁶⁸ Thus, in *Emmanuel Atungwu & Anor v Ada Ochekwu*, the Supreme Court of Nigeria held that:

As to the word "Shall" this Court per Mohammed JSC in *UMEANADU V. AG ANAMBRA STATE* (2008) 9 NWLR (PART 1091) 175 held that, "It is not in every case that the word "shall" imports a mandatory meaning into its use." See also *AMADI V. N.N.P.C.* (2000) 10 NWLR (PART 674) 76; *ABDULLAHI v. THE MILITARY ADMINISTRATOR & ORS*

⁵⁹*Supra* note 4 at 21.

⁶⁰*Ibid.*

⁶¹JF Wilson, *Carriage of Goods by Sea*, 5th ed (London, UK: Longman, 2004) at 119.

⁶²*Ibid.*

⁶³*Supra* note 55 at 89.

⁶⁴Hague-Visby Rules, *supra* note 42, art 3(3).

⁶⁵Hamburg Rules, *supra* note 43, art 15(1).

⁶⁷Hague-Visby Rules, *supra* note 42, art 3(3); Hamburg Rules, *supra* note 43, art 15(1).

⁶⁸*Umeanadu v AG Anambra State* (2008) 9 NWLR (Pt 1091) 175; *Amadi v NNPC* (2000) 10 NWLR (Pt 674) 76; *Abdullahi v the Military Administrator & Ors* (2009) 15 NWLR (Pt 1165) 417.

(2009) 15 NWLR (PART 1165) 417 wherein it was stated that the word "Shall" may at times be construed as conveying a permissive or directory meaning of "May." Whether the word "Shall" is used in a mandatory or directory sense would depend on the circumstances of the case. In the particular context in which it is used under section 294 (1) of the Constitution of the Federal Republic of Nigeria 1999 the word "Shall" cannot be construed as meaning a command or compulsion for the very simple reason that there could be a myriad of reasons why a decision of court is not turned in within the constitutionally prescribed 90 day period under the Constitution.⁶⁹

It would seem that the "must" in Article 15(1) of Hamburg Rules imports a greater certainty of peremptoriness than the "shall" in the Hague-Visby Rules. Be that as it may, although the carrier has an obligation under both regimes to issue a bill upon demand by the shipper, it may in appropriate circumstances refuse to incorporate some information into the bill of lading on the ground of lack of confidence in its accuracy or of absence of reliable means of ascertaining such accuracy.⁷⁰

The statement that a bill of lading is *prima facie* evidence of the receipt by the carrier of the goods so described as concerns the shipper is trite both at common law and the regimes of Hague-Visby and Hamburg Rules.⁷¹ However, while it is automatic under the Hague-Visby and Hamburg Rules regimes that such a bill is conclusive evidence of the receipt of the goods as described when in the hands of third parties, a similar advantage can only be achieved at common law by the mechanism of estoppel.⁷²

It is not clear what the effect of a failure or even refusal by the carrier to include the information as to weight, quantify, leading marks for identification and condition required under Article III(3) of the Hague-Visby Rules will be.⁷³ Wilson is of the view that it will advance the overall object of Article III(3) of the Hague-Visby Rules that

⁶⁹(2013) LPELR – 20935 (SC) at 47-8.

⁷⁰Hague-Visby Rules, *supra* note 42, art 3(3); *supra* note 61 at 119.

⁷¹Hague-Visby Rules, *supra* note 42, art 3(3) & 3(4); Hamburg Rules, *supra* note 43 arts 15(1) & 16(3)(a).

⁷²Hague-Visby Rules, *supra* note 42, art 3(4); Hamburg Rules, *supra* note 43, art 16(3)(b); *supra* note 61 at 119.

⁷³*Supra* note 61 at 119.

Article III(8) is interpreted to render any statement such as “weight unknown” or “weight unconfirmed” null and void and of no effect.⁷⁴

Although there is no equivalent provision in the Hamburg Rules, as exists under the Hague-Visby Rules, that allows the carrier or its agent to refuse to include information into the bill of lading on the ground of lack of confidence in its accuracy or of absence of reliable means of ascertaining such accuracy, the Hamburg Rules regime also empowers the carrier or its agent to insert a relevant reservation in the bill of lading specifying such inaccuracies, grounds of suspicion or the absence of reasonable means of checking them.⁷⁵ Failure to make such reservations by the carrier or its agent will be taken to mean that the goods were shipped in apparent good order and condition.⁷⁶ However, the shipper is deemed to have guaranteed the accuracy of particulars relating to the general nature, condition, quantity and quality of the goods as furnished by the shipper for insertion in the bill of lading and shall indemnify the carrier against any loss resulting from inaccuracies in such particulars.⁷⁷ For this purpose, the shipper remains liable even after the bill of lading has been endorsed to a third party.⁷⁸ However, the right of the carrier to such indemnity does not affect its liability on the bill to the ultimate bona fide transferee.⁷⁹

Electronic bills of lading have no difficulty in fulfilling the function of serving as receipts for the goods shipped.⁸⁰ This is achieved through an electronic bill or data prepared in respect of the shipment based on earlier information from the shipper or his or its agent which acknowledges receipt of the goods shipped and reflects their quantity, weight, condition and leading marks for identification.⁸¹ The bill may be prepared by the

⁷⁴*Ibid.*

⁷⁵Hamburg Rules, *supra* note 43, art 16(1).

⁷⁶*Ibid.*, art 16(20).

⁷⁷Hague-Visby Rules, *supra* note 42, art 3(5); Hamburg Rules, *supra* note 43, art 17(1).

⁷⁸*Ibid.*

⁷⁹*Ibid.*

⁸⁰SC Chukwuma, “Can the Functions Of A Paper Bill Of Lading Be Replicated By Electronic Bill Of Lading?” (2013) 3:8 Public Policy and Administration Research 101 at 104.

⁸¹AC Vieira, *Electronic Bills of Lading* (LLM Thesis, University of Nottingham School of Law, 1999) [unpublished] at 8.

carrier or its agent or by a central registry system.⁸² Elentably provides insight into the form and content of a receipt message when he stated that:

The carrier, upon receiving the goods from the shipper, shall give notice of the receipt of the goods to the shipper by a message at the electronic address specified by the shipper. This receipt message shall include: the name of the shipper; the description of the goods, with any representations and reservations, in the same tenor as would be required if a paper bill of lading were issued; the date and place of the receipt of the goods; a reference to the carrier's terms and conditions of carriage; and the Private Key to be used in subsequent Transmissions. The shipper must confirm this receipt message to the carrier, upon which Confirmation the shipper shall be the Holder.⁸³

Whether a paper or electronic bill of lading is employed in relation to any particular carriage transaction, it is necessary to remember that, due to increasing containerization of goods, statements nowadays may relate as much to the external features of the container and similar packaging as to the conditions of the goods inside.

2.2.2 Evidence of Contract of Carriage

As already stated, the bill of lading started to perform its second function of serving as evidence of the sea carriage contract in the 16th century when, due to the increasing amount of cargo carried per vessel, it became commercially impracticable to enter into a charterparty with all the shippers, resulting in the embodiment of the sea carriage contract in the bill of lading.⁸⁴

The bill of lading is not in itself the contract of carriage, but merely evidences it. In other words, at least, as far as the shipper is concerned, the bill of lading only provides evidence of a contract of carriage independently concluded, sometimes orally before the

⁸²*Ibid.*

⁸³A. Elentably, "The Advantage of Activating the Role of the EDI-Bill of Lading And its Role to Achieve Possible Fullest" (2012) 6:4 International Journal on Marine Navigation and Safety of Sea Transportation 595 at 596; Yiannopoulos *supra* note 34 at 43.

⁸⁴*Supra* note 55 at 96.

bill came into being.⁸⁵ Thus, it is possible for the shipper to claim for breach of contract in cases where the goods are lost or damaged even before the issuance of the bill of lading.⁸⁶ Accordingly, if the terms of the bill of lading eventually issued differ from the terms of any earlier oral agreement, the shipper will be at liberty to lead oral evidence to establish the true contractual terms.⁸⁷

However, as between the carrier and subsequent endorsees or lawful holders of the bill of lading, it is a conclusive proof of the contract of carriage.⁸⁸ Thus, the bill in the hand of a third party is the only acceptable evidence of the contract of carriage, and the rule that oral evidence will not be allowed to alter, qualify or vary the terms or effect of a written contract will apply with equal force.⁸⁹ The rule that, as between the carrier and subsequent endorsees, the bill of lading constitutes the contract of carriage has statutory blessing under the UK's *Carriage of Goods by Sea Act 1992* (COGSA).⁹⁰ In *Leduc v Ward*,⁹¹ it was held that:

Where the bill of lading is indorsed over, as between the ship owner and the endorsee the bill of lading must be considered to contain the contract, because the former has given it for the purpose of enabling the charterer to pass it on as the contract of carriage in respect of the goods.⁹²

An electronic bill of lading can easily replicate the evidence of contract-of-carriage function of a paper bill.⁹³ As Dubovec has argued, “the receipt and evidence functions of

⁸⁵*Supra* note 61 at 128; *The Ardennes* (1951) 1KB 55, 59-60.

⁸⁶*Pyrene v Sciencha Navigator co* (1954) QB 402.

⁸⁷*Evidence Act*, 2011, s 128(1) (EA) (Nigeria).

⁸⁸*Leduc v Ward* (1888) 20 QBD475; *Carriage of Goods by Sea Act 1992* (UK) c 50, s 3(3) (COGSA).

⁸⁹*UBN Limited v Sax (Nig) Limited* (1994) 8 NWLR (Pt 361) 150 SC.

⁹⁰*Carriage of Goods by Sea Act 1992* (UK) c 50, s 2(1) (COGSA).

⁹¹(1888) 20 QBD 475, 479.

⁹²Even before the decision in *Leduc v Ward*, the English *Bill of Lading Act, 1855*, s 1 had made it clear that the bill of lading constitutes the contract of carriage between the carrier and subsequent endorsees or lawful holders of the bill.

⁹³*Supra* note 80 at 104.

a contract of carriage may easily be performed by electronic means because they are essentially the transfer of information.”⁹⁴

In any case, it is necessary to remember that as a general principle of the common law of contract, there is no insistence on any particular form for the formation of a valid contract so long as all the essentials of a valid contract are present.⁹⁵ Furthermore, in jurisdictions like Nigeria, the courts have held that, in deference to equity, a party who has derived benefits from a contract will not be allowed to impeach the validity of such a contract.⁹⁶ Thus, an argument by a party that a contract of carriage is unenforceable merely because it was effected through an electronic bill of lading rather than through a paper form may not find much favour with the Nigerian courts.

2.2.3 Document of Title

It can confidently be argued that the function of serving as a document of title is the most significant feature of the bill of lading.⁹⁷ It enhances international trade finance as banks and other financial institutions accept the bill as security or collateral for letters of credit advances to the importer or exporter because of the banks’ confidence in the document-of-title feature of the bill of lading.⁹⁸ As revealed elsewhere in this work, the document-of-title function of the bill of lading achieved judicial endorsement in the 18th century.⁹⁹ This feature confers on the holder of the bill of lading not only the right of constructive or symbolic possession of the goods, but also the right of ownership over the goods where there is requisite mutual intention to that effect.¹⁰⁰ However, the right of constructive possession is subject to the right of stoppage in transit or of disposal of the goods by the

⁹⁴M Dubovec, “The Problems and Possibilities for Using Electronic Bills of Lading as Collateral” (2006) 23:2 Arizona Journal of International & Comparative Law 437 at 448.

⁹⁵*Trade Bank Plc v Dele Morenikeji (Nig.) Ltd. & Another*, CA/IL/1/2003 unreported Nigeria’s Court of Appeal Decision available at <http://www.yusufali.net/reports/trade_bank_v_dele.pdf>.

⁹⁶*Iloabachie v Philips* (2002) 14NWLR (Pt 787) CA 264 at 289-290.

⁹⁷*Supra* note 94 at 442; ET Laryea, *Paperless Trade: Opportunities, Challenges and Solutions* (The Hague: Kluwer Law International, 2003) at 67.

⁹⁸*Supra* note 94 at 444.

⁹⁹*Supra* note 55 at 102-3.

¹⁰⁰*Ibid* at 103-4; Baughen, *supra* note 57 at 8.

seller, if the shipper fails to perform its part of the bargain under the sales contract.¹⁰¹ The bill of lading is not a fully-fledged document of title in that its transferee cannot get a better title than the transferor which is a fundamental attribute that flows from an instrument being a document of title.¹⁰²

The document-of-title function of the bill is the most difficult to be replicated in electronic setting.¹⁰³ The most successful ways that shipping stakeholders have employed to surmount the obstacles to dematerialization of the document-of-title function of the bill are the registry system¹⁰⁴ and the use of private and public key mechanisms.¹⁰⁵

2.2.4 Sea Waybills

The sea waybill can, in a manner of speaking, be referred to as a half-brother of the bill of lading. For example, it performs the first two functions of the bill of lading, namely, as receipt for the goods received for shipment or actually shipped, and as evidence of the contract of carriage.¹⁰⁶ However, unlike the bill of lading, it is not a document of title.¹⁰⁷ It is used as an alternative to the bill of lading in situations where there is no intention to resell the goods while in transit.¹⁰⁸ It has the same contractual and legal implications as the bill of lading except in relation to the shipowner's delivery obligation.¹⁰⁹ While the shipowner is contractually bound to deliver the goods against the delivery of the original bill of lading, the sea waybill is not required before the shipowner releases the goods to

¹⁰¹*Ibid.*

¹⁰²Baughen, *supra* note 57 at 8.

¹⁰³*Supra* note 94 at 442; HM Kindred, "Trading Internationally by Electronic Bills of Lading" (1992) 7 Banking & Finance Law Review 265 at 275.

¹⁰⁴M Goldby, "Electronic Bills of Lading and Central Registries: What is Holding Back Progress?" (2008) 17:2 Information & Communications Technology Law 125 at 126.

¹⁰⁵A Lai & P Wu, "Bearer Electronic Bills of Lading Based on Challenge-Response Strategy" (2003) 5 Journal of the Eastern Asia Society for Transportation Studies, 587 at 588-9.

¹⁰⁶*Supra* note 4 at 15.

¹⁰⁷*Ibid.*

¹⁰⁸Baughen, *supra* note 57 at 25.

¹⁰⁹*Ibid.*

the consignee named therein.¹¹⁰ All that is required of the consignee named in a sea waybill to take delivery of the goods is to satisfactorily identify him or herself to the shipowner or carrier or its agent.¹¹¹

An important advantage of the sea waybill is that, unlike the bill of lading, there is no risk that it will arrive later than the goods with the resultant additional port charges.¹¹² It is estimated that currently about 85% of transatlantic trade involving container ships is carried on through the mechanism of the sea waybill.¹¹³ However, the sea waybill has the major disadvantage of unattractiveness to the banking community as security for purposes of international trade finance, since, unlike the bill of lading, it is not a document of title.¹¹⁴ Both the Hague Rules and Hague-Visby Rules do not expressly apply to the sea waybill since it is neither a bill of lading nor a document of title.¹¹⁵ However, the Hamburg Rules apply to the sea waybill since their application is not limited to bills of lading or similar documents of title, as is the case with the Hague and Hague-Visby Rules regimes.¹¹⁶ COGSA¹¹⁷ also applies to the sea waybill.¹¹⁸ The provisions of the Hague and Hague-Visby Rules can be made applicable by incorporation into the sea waybill.¹¹⁹

The sea waybill, not being a document of title, nor a negotiable bill requiring the production of the original for purposes of taking delivery of the goods, can easily be

¹¹⁰*Ibid.*

¹¹¹*Ibid.*

¹¹²*Supra* note 3 at 12.

¹¹³*Ibid.*

¹¹⁴*Supra* note 94 at 443-6.

¹¹⁵WHV Boom, "Certain Legal Aspects of Electronic Bills of Lading" (1997) 32(1) *European Transport Law* 9 at 13-6.

¹¹⁶*Ibid.*; Hague-Visby Rules, art 1(b); Hamburg Rules, arts 1(6) & 2.

¹¹⁷COGSA, *supra* note 90, s 1(1).

¹¹⁸*Supra* note 4 at 16.

¹¹⁹*Supra* note 94 at 445.

replicated in an electronic form, just like the receipt and evidence-of-contract functions of the bill of lading.¹²⁰

2.2.5 Delivery Orders

A delivery order is a documentary mechanism whereby the delivery rights and obligations in relation to different portions of bulk cargo shipped for different receivers are specified.¹²¹ In such circumstances of bulk cargo, smaller portions of which are sold to separate buyers, the bill of lading is not a proper instrument to effect the multiple transactions and deliveries, and the usual option of cancelling the original bill and reissuing split bills of lading is not an attractive one.¹²² In exchange for delivery orders splitting the bulk for the various buyers, the original bill of lading must be surrendered to the carrier.¹²³ The only type of delivery order that has some remote features of the bill of lading is the “ship’s delivery order” which must have some affinity with the ship.¹²⁴ Delivery orders may be issued by or on behalf of the carriers, who have possession or control of the goods, by virtue of which they undertake the delivery of the goods to the holder thereof or to the order of a named person.¹²⁵ They may also be addressed to the carrier with instruction that it delivers the goods to the order of a named person, to whom the carrier subsequently will attorn.¹²⁶

At common law, a delivery order is not a document of title, and therefore will require attornment by the master of the ship before it can effect a valid transfer of rights in the goods or be a good tender under a documentary sale.¹²⁷ Attornment is achieved by the carrier or its agent signing the delivery order and undertaking to deliver the goods

¹²⁰*Ibid* at 446.

¹²¹*Supra* note 4 at 16.

¹²²*Ibid*.

¹²³*Supra* note 55 at 116.

¹²⁴*Supra* note 4 at 17.

¹²⁵*Ibid*.

¹²⁶*Ibid*; *Waren Import Gesellschaft Krohn & Co v Internationale Graanhandel Thegra NV* (1975) 1 Lloyd’s Rep. 146.

¹²⁷*Supra* note 55 at 117; *supra* note 4 at 17.

covered by it to its holder upon presentation.¹²⁸ A delivery order under which the carrier or its agent undertakes to deliver the goods to a named person or his or her order is a document of title that is transferable.¹²⁹ A lawful holder of a delivery order has a right of suit against the carrier of the goods under Section 2(3) of the COGSA.¹³⁰ The suit can be maintained on the terms of the original bill of lading even though the holder was never a party to the contract of carriage evidenced by the bill.¹³¹ However, such a suit can only be maintained within the terms of the delivery order and in regard to the goods to which it relates.¹³²

There is no reason, in principle, why the delivery order cannot be replicated in an electronic environment, especially given that before attornment by the carrier or its agent, the delivery order merely evidences the request or command of the shipper to the carrier akin to the terms of carriage contract under a bill of lading.¹³³

2.3 Advantages of the Traditional Bill of Lading

A very important advantage of the use of the paper bill of lading is that, since it has been in use for centuries now, there are a good number of precedents and guides, including judicial decisions on its uses and implications.¹³⁴ This increases not only the certainty of the law on the paper bill of lading but also the confidence of legal and financial experts when giving advice on the law and practices relating to the uses of the paper bills.

Also, transfer of rights in the goods covered by the paper bill of lading can be achieved by confident and easy endorsement and delivery of the bill.¹³⁵ This enhances

¹²⁸*Ibid.*

¹²⁹*Supra* note 55 at 117.

¹³⁰*Ibid.*

¹³¹*Ibid.*

¹³²*Ibid.*

¹³³See *supra* note 4 at 95-6.

¹³⁴F Gehrke, *New Attempts at Electronic Documentation in Transport: Bolero – The End of the Experiment, the Beginning of the Future* (LL.M. Thesis, University of Cape Town Faculty of Law, 2001) [unpublished] at 3.

¹³⁵Yiannopoulos, *supra* note 34 at 17.

international trade financing by making the paper bill a reliable collateral for documentary credit transactions.¹³⁶ Moreover, the large practice on paper bills of lading has produced an amazing uniformity of legal rules and practices relating to the paper bills of lading at the international level. Such practices and rules include, but are not limited to the Hague, Hague-Visby and Hamburg Rules.¹³⁷

Encrypted electronic bills are safer due to the high rate of cybercrime bedevilling electronic documentation.¹³⁸ There is a further advantage of paper bills of lading being within the reach of the knowledge and capabilities of a greater number of users, particularly in less developed countries with insufficient and inefficient electronic infrastructure.¹³⁹

2.4 Disadvantages of the Traditional Bill of Lading

The traditional paper bills of lading do not fit into the framework of modern commercial reality,¹⁴⁰ and are:

...insecure, complicated and costly to use in shipping transactions and are known to cause delay especially when there is re-keying errors. It is common as it has been noted that paper bills rarely arrive before the vessel in voyages involving oil cargoes which prompted ship owners to rely on indemnities, and banks advancing credits find it difficult to get real security which made standby letters of credit to be used instead of documentary credit.¹⁴¹

Delay in the arrival of documents at the destination ports caused by detours to the banks for documentary credit transactions and efficient and faster containerized shipping

¹³⁶*Ibid.*

¹³⁷*Supra* note 4 at 95-6.

¹³⁸See generally *supra* note 80 at 101.

¹³⁹*Ibid.*

¹⁴⁰*Ibid* at 102.

¹⁴¹*Ibid.*

without corresponding improvements in the international postal services, results in additional port charges especially concerning the custody and insurance of the goods.¹⁴²

The cost of processing and using paper bills of lading is so high that it has been estimated to constitute about 10 to 15 percent of the total transportation cost globally.¹⁴³ Since the paper bill of lading is issued in a set of three originals, the probability of falsifying any of the original copies to create or negotiate the rights to the goods covered by the bill is very high.¹⁴⁴ Inclusion of inaccurate and insufficient particulars in the paper bill of lading is another worrisome disadvantage of the conventional bill of lading.¹⁴⁵

2.5 The Electronic Bill of Lading in Electronic Commerce and International Trade

The bill of lading, as the representative of the goods¹⁴⁶ forming the subject matter of the carriage contract performs three basic functions as identified above. These functions underlie the significance of the bill of lading in conventional international trade.¹⁴⁷ As a negotiable document of title, the bill of lading drives the sea carriage contract.¹⁴⁸ Thus, since about eighty percent of the total goods transported across the globe is done by sea,¹⁴⁹ it is fair to conclude that, at least for the moment, the bill of lading is indispensable to international trade transactions. This conclusion holds true for both the paper-based international business and electronic commerce. In other words, there is nothing in principle why the shift from paper-based contracting to electronic commerce should diminish the significance of the bill of lading in international trade.

¹⁴²Yiannopoulos, *supra* note 34 at 17-8.

¹⁴³*Ibid* at 18.

¹⁴⁴*Ibid*.

¹⁴⁵*Ibid* at 19

¹⁴⁶*Supra* note 55 at 88.

¹⁴⁷*Supra* note 4 at 14.

¹⁴⁸*Supra* note 94 at 444.

¹⁴⁹*Ibid* at 439.

2.6 The Challenge of Negotiating the Electronic Bill of Lading

It is beyond doubt that the bill of lading is, as described by Lord Hatherley in *Barber v Meyerstein*,¹⁵⁰ “the key to the warehouse” and is negotiable to the extent that the transferee or endorsee takes the bill subject to all equities affecting the rights of his or her transferor or endorser.¹⁵¹ This is what distinguishes the bill of lading from other documents of title such as bills of exchange which have full negotiability, enabling their transferees to take them free from all defects in the title of their transferors so long as such transferees obtained them for value and without notice of such defects in their transferors’ title.¹⁵² In other words, the transferee of a bill of lading can never obtain a better title in the goods than his or her transferor had.¹⁵³

For a bill of lading to be considered a document of title at common law, it must not be a straight bill of lading, but rather a bearer or an order bill of lading since the goods represented in or by a straight bill are made deliverable to a named consignee with no further words of transferability or with some other words that negate such transferability.¹⁵⁴

The most challenging aspect of the electronic bill of lading is achieving the feature of “negotiability”.¹⁵⁵ This arises from the fact that relevant existing legal rules on, and commercial procedures for, negotiating bills of lading are entirely paper-based, as a result of which manual authentication and physical possession of the original paper document or bill vested title to the goods.¹⁵⁶ A number of techniques have been adopted to address the difficulties posed by the use of electronic bills of lading, particularly the challenge of negotiability. These techniques include, but are not limited to, the use of a third-party or

¹⁵⁰(1870) LR 4 HL 317.

¹⁵¹Laryea, *supra* note 97 at 69.

¹⁵²*Ibid.*

¹⁵³*Ibid.*

¹⁵⁴*Ibid.*

¹⁵⁵Yiannopoulos, *supra* note 34 at 37.

¹⁵⁶*Ibid* at 37; Laryea, *supra* note 97 at 74.

central registry system,¹⁵⁷ use of passwords and biometrics,¹⁵⁸ recognition of physical characteristics and employment of private and public key cryptography.¹⁵⁹

Furthermore, as Vieira observed, negotiable instruments are not created at will, but must be a result of either statutory recognition or mercantile usage.¹⁶⁰ Generally speaking, there is no specific statutory empowerment by which parties to a carriage contract can, by means of exchange of electronic communications or messages transfer rights in or title to goods, the subject matter of the carriage contract.¹⁶¹

While I share Emmanuel's optimism that electronic documents may become negotiable with time by mercantile usage,¹⁶² it is necessary to remember that, that particular route to achieving negotiability of electronic bills of lading is a long one,¹⁶³ especially in the light of the conservatism of maritime players to embrace the modern electronic commercial practices.¹⁶⁴

2.7 International Legal Responses to the Challenge of Negotiating the Electronic Bill of Lading

2.7.1 Hague-Visby, the Hamburg and the Rotterdam Rules on Negotiation of the Electronic Bill of Lading

There has been broad support for international efforts to unify and harmonize private law since the 19th century.¹⁶⁵ Thus, in the 1920s, the international community, in recognition of the value of uniformity in rules and practices relating to the ocean bill of lading, drafted

¹⁵⁷*Supra* note 104 at 127.

¹⁵⁸Laryea, *supra* note 97 at 33.

¹⁵⁹Yiannopoulos, *supra* note 34 at 36.

¹⁶⁰*Supra* note 81 at 11.

¹⁶¹JB Ritter & JY Gliniecki, "International Electronic Commerce and Administrative Law: The Need For Harmonised National Reforms" (1993) 6 *Harvard Journal of Law & Technology* 263 at 279.

¹⁶²Laryea, *supra* note 97 at 74.

¹⁶³*Supra* note 94 at 447.

¹⁶⁴See generally, *supra* note 161 at 269-71.

¹⁶⁵JAE Faria, "Uniform Law and Functional Equivalence: Diverting Paths or Stops Along the Same Road? Thoughts on A New International Regime For Transport Documents" (2011) 2(1) *Elon Law Review* 1 at 1.

and implemented the Hague Rules and their subsequent modifications and alternative regimes.¹⁶⁶ However, with respect to electronic documentations, only the Rotterdam Rules, among the four existing international regimes on the bill of lading,¹⁶⁷ represent specific, co-ordinated and responsive efforts at the international level to accommodate the emerging demands of the use of electronic communications and messages in contractual dealings in relation to carriage of goods by sea.¹⁶⁸

Thus, the provisions of the Hague and Hague-Visby Rules are crafted as to connote tangibility, and do not on their own give any room for extension of terms like “document”, “writing” and “signatures” to digital representations or communications.¹⁶⁹ The Hamburg Rules, however, contain some provisions that can be interpreted as accommodating electronic documents or bills of lading so long as there are no national laws that prohibit the use of electronic documents or bills.¹⁷⁰ For instance, Article 1(8) of the Hamburg Rules defines “writing” as including “*inter alia*, telegram and telex”. The import of the definition is that the list of what constitutes writing is not exhaustive, and so electronic communications or bills of lading can arguably be accommodated. Furthermore, Article 14(3) of the Hamburg Rules provides that:

The signature on the bill of lading may be in handwriting, printed in facsimile, perforated, stamped, in symbols, or made by any other mechanical or electronic means, if not inconsistent with the law of the country where the bill of lading is issued.

It is arguable that electronic signatures which are allowed in the provisions above can only be in relation to electronic bills of lading. However, there are no direct provisions

¹⁶⁶T Nikaki & B Soyer, “A New International Regime for Carriage of Goods by Sea: Contemporary, Certain, Inclusive AND Efficient, or Just Another One for the Shelves?” (2012) 30(2) Berkeley J. Int'l Law 303 at 303-4.

¹⁶⁷The four existing regimes are, the Hague Rules, the Hague-Visby Rules, the Hamburg Rules and the Rotterdam Rules respectively.

¹⁶⁸See generally M Alba, “Electronic Commerce Provisions in the UNCITRAL Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea” (2009) 44 Texas International Law Journal 387.

¹⁶⁹*Supra* note 115 at 14-5.

¹⁷⁰*Ibid* at 14.

concerning the negotiability or document-of-title feature of an electronic bill under the Hamburg Rules.

The provisions of the Rotterdam Rules on the use and effect of electronic communications and electronic records are more specific and direct. The convention uses more neutral terms such as ‘transport document’ and ‘electronic transport record’ which cover both bills of lading and sea waybills.¹⁷¹ Although, the term “document of title” is absent under the Rotterdam Rules,¹⁷² they provide for negotiability of electronic bills of lading under Article 1(15). While a “negotiable transport document” is defined as:

... a transport document that indicates, by wording such as “to order” or “negotiable” or other appropriate wording recognised as having the same effect by the law governing the document, that the goods have been consigned to the order of the shipper, to the order of the consignee, or to bearer, and is not explicitly stated as being “non-negotiable” or “not negotiable”,¹⁷³

Article 47(1)(a)(ii) of the Rotterdam Rules empowers the holder of the negotiable electronic transport records to claim delivery from the carrier at the port of discharge so long as he is able to demonstrate as required under Article 9(1) of the Rotterdam Rules that he is the holder of the negotiable electronic transport document.¹⁷⁴

¹⁷¹*Supra* note 55 at 158-9.

¹⁷²*Ibid* at 160.

¹⁷³Rotterdam Rules, *supra* note 46, art 1(15).

¹⁷⁴*Supra* note 55 at 169. See also the Rotterdam Rules, *supra* note 46, arts 9, 47 & 51.

2.7.2 UNCITRAL Model Law on Electronic Commerce 1996 on Negotiation of the Electronic Bill of Lading

On 12 June 1996, the United Nations Commission on International Trade Law (UNCITRAL) adopted the *UNCITRAL Model Law on Electronic Commerce*, 1996 (MLEC).¹⁷⁵ It is meant to offer States a model for harmonised legal regimes that will facilitate communication and storage of digital information by ensuring functional equivalence, media neutrality and legal recognition and enforceability for electronic documentations and communications.¹⁷⁶ The MLEC is not a binding instrument. Parties can however incorporate its provisions into their contracts. The MLEC is divided into two parts. While part one relates to general electronic commerce, part two comprises Articles 16 & 17 and applies to specific areas of electronic commerce – carriage of goods by sea.¹⁷⁷

While a data message is defined to cover all forms of electronic communications including EDI,¹⁷⁸ the recognition and definition of EDI under the MLEC¹⁷⁹ serves the needs of the electronic bill of lading well. A carriage of goods by sea contract or any contract for that matter will not be denied legal recognition and enforceability merely because it was effected in or by electronic form,¹⁸⁰ and since electronic bills are accessible for purposes of subsequent uses or references, they satisfy the conditions of validity and enforceability specified under Article 10 of the MLEC. The aim of the drafters of the MLEC was to achieve functional equivalence or equality and media neutrality for electronic bills and messages. Furthermore, the provisions of the MLEC like all other electronic commerce regimes are couched in such general terms¹⁸¹ as to make room for

¹⁷⁵UNCITRAL, *Model Law on Electronic Commerce*, GA Res 51/162, GAOR 51st sess, 85th plen mtg, UN Doc A/Res/51/162 (1996) (with additional article 5bis as adopted in 1998 and Guide to Enactment).

¹⁷⁶*Supra* note 55 at 154-5.

¹⁷⁷*Ibid.*

¹⁷⁸MLEC, *supra* note 175, art 2(a).

¹⁷⁹*Ibid.*, art 2(b).

¹⁸⁰*Ibid.*, art 5.

¹⁸¹*Ibid.*, arts 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 & 17.

future developments in information and communication technology.¹⁸² This is the right approach given the constancy and speed of the information and communications technology revolution.¹⁸³

Under Article 7 of the MLEC, the electronic signature enjoys the same treatment as the physical signature so long as the method used is such that it is possible to identify who the signer is and to ascertain his approval of the information contained in the electronic data or bill of lading.¹⁸⁴ This particular provision is appropriate since the underlying philosophy behind the concept and practice of appending signatures to documents is to demonstrate some connection between the signer and the contents of the document.

The problem of negotiation of an electronic bill of lading is solved under the regime of the MLEC through the mechanism set out in Articles 16(e), (f) & (g) and 17. While Article 16(e) concerns undertaking to deliver goods to a named person or a person authorized to claim delivery under a transport document, Article 16(f) deals with granting, acquiring, renouncing, surrendering, transferring or negotiating rights in goods. Article 16(g) on the other hand, is on acquiring or transferring rights and obligations under the contract of carriage. Effecting any of these actions by an electronic bill of lading is as good as effecting them through the use of writing or paper bill or documents.¹⁸⁵ The MLEC has also achieved a “guarantee of singularity” by providing that where a right is to be granted to, or an obligation is to be acquired by, one person to the exclusion of all other persons, using the electronic bill or message to convey such right or obligation is as valid as achieving same by transfer, or use of a paper document, provided that a reliable method is used to render such data message or messages unique.¹⁸⁶

¹⁸²See generally C Indira, “UNCITRAL & Electronic Signatures: A Light Touch at Harmonisation” (2003) 1:1 Hertfordshire Law Journal 14 at 17.

¹⁸³See generally ML Rustad, “Commercial Law Infrastructure for the Age of Information” (1998)16(2) J. Marshall J. Computer & Info. L.255.

¹⁸⁴MLEC, *supra* note 175, art 7(1).

¹⁸⁵*Ibid*, art 17(1).

¹⁸⁶*Ibid*, art 17(3).

The “guarantee of singularity” is further strengthened by rendering any actions meant to transfer or acquire rights in goods or to transfer or acquire rights and obligations under the contract of carriage by the use of a paper document invalid where the same rights or obligations have earlier been granted or acquired under an electronic bill of lading or messages, unless the subsequent paper bill or document has expressly terminated or replaced the electronic bill or message.¹⁸⁷ These provisions will go a long way in securing the confidence of maritime players in the electronic bill of lading since the provisions guarantee the integrity of electronic bills. The attractiveness of the electronic bill of lading to maritime stakeholders is further boosted by the provision of Article 17(6) of the MLEC to the effect that a rule of law that is compulsorily applicable to a contract of carriage between the parties does not become inapplicable simply because such contract was effected by an electronic bill or means. This provision ensures applicability of compulsory rules of international regimes on electronic bills of lading such as the Hague-Visby Rules and Hamburg Rules to the same extent as they would apply if the carriage contract had been effected through a paper bill of lading.¹⁸⁸

2.7.3 Comité Maritime International Rules for Electronic Bills of Lading 1990 on Negotiation of the Electronic Bill of Lading

The CMI, in 1990, issued the CMI Rules¹⁸⁹ with a view to addressing the problems encountered by the SeaDocs system and to facilitating the adoption of electronic bills of lading in carriage of goods by sea transactions.¹⁹⁰ The CMI Rules were meant to serve as a model for the electronic bill of lading system for use by carriers.¹⁹¹ They are a regulatory framework or proposal that works only when adopted by parties who agree to use the electronic bill of lading in their sea carriage contracts.¹⁹² CMI Rules are not a system since

¹⁸⁷*Ibid*, art 17(5).

¹⁸⁸*Supra* note 55 at 157.

¹⁸⁹Comité Maritime International *Rules for Electronic Bills of Lading* 1990 (CMI Rules).

¹⁹⁰Laryea, *supra* note 97 at 80.

¹⁹¹*Supra* note 55 at 149.

¹⁹²Laryea, *supra* note 96 at 80; Kindred, *supra* note 103 at 281-2.

they do not set up any entity or body to administer the issuance, transmission, certification and transfer of electronic bills issued under their framework.¹⁹³

Under Article 3 of the CMI Rules, the EDI is governed by the *Uniform Rules of Conduct for Interchange of Trade Data by Transmission* (UNCID) provided that they are not in conflict with the CMI Rules themselves.¹⁹⁴ Except where the parties agree on some other method of trade data interchange, the EDI must further conform to the United Nations *Rules for Electronic Data Interchange for Administration, Commerce and Transport* (UN/EDIFACT).¹⁹⁵ The operation of the CMI Rules centres on the exchanges of electronic notices or receipt messages and the use of private keys, the possession of which determines the right of control or title to the goods.¹⁹⁶ Upon agreement by the parties to use the electronic bill of lading under the CMI Rules and receipt of the goods from the shipper, the carrier issues an electronic notice called the “receipt message” to the shipper’s electronic address.¹⁹⁷ The message must include the name of the shipper, the description of the goods, the date and place of the receipt of the goods, a reference to the carrier’s terms and conditions of carriage and the private key to be used in subsequent transmissions.¹⁹⁸ This information is essentially the same as that found in paper bills of lading.¹⁹⁹ The shipper does not become the holder or acquire the right of control and title to the goods until it confirms the receipt message to the carrier, and only then is it or he or she authorised to act on the transmission.²⁰⁰

The holder of the private key is in the same position as the holder of a paper bill of lading with consequent right to transfer his or her right of control or title to the goods.²⁰¹

¹⁹³*Ibid.*

¹⁹⁴See generally Kindred, *supra* note 103 at 272.

¹⁹⁵*Ibid.*

¹⁹⁶Laryea, *supra* note 97 at 80-1.

¹⁹⁷CMI Rules, *supra* note 189, r 4(a).

¹⁹⁸CMI Rules, *supra* note 189, r 4(b).

¹⁹⁹Laryea, *supra* note 97 at 80.

²⁰⁰*Ibid* at 81.

²⁰¹*Ibid.*

The holder of the private key transfers his or her right of control or title to the goods by notifying the carrier of his or her intention to that effect, together with the name and electronic address of the prospective transferee. Upon receipt of such notification, the carrier will transmit the contract information except the private key to the prospective holder who accepts or declines the right of control and transfer.²⁰² If the prospective holder declines or fails to decline the right of control and transfer within a reasonable time, the proposed transfer of the right of control and transfer will not take effect and the previous private key remains intact, otherwise the current private key will be cancelled by the carrier and a new one issued to the successful new holder. Where for any reason, the transfer of the right of control and transfer is effected, the carrier has a duty to advise the current holder accordingly.²⁰³ A transfer effected as described has the same effect as a transfer under a paper bill of lading.²⁰⁴

The CMI Rules imposes a duty on the carrier to notify the holder of the place and date of delivery of the goods, upon which the holder nominates a consignee and gives adequate delivery instructions to the carrier with verification by the private key. The holder will be deemed to be the consignee if he or she fails to nominate one.²⁰⁵ The carrier shall deliver the goods upon production of proper identification in accordance with delivery instructions, but will not be liable for any misdelivery if it or he or she can prove that it exercised reasonable care to ascertain the identity of the nominated consignee that took delivery of the goods.²⁰⁶

The good news about the CMI Rules is that they support conversion to or issuance of paper bills of lading upon request by the holders in situations where further digitalization of the carriage transactions can no longer be supported due to legal, logistic or administrative reasons.²⁰⁷ The wisdom behind this provision cannot be faulted

²⁰²CMI Rules, *supra* note 189, r 7(b).

²⁰³*Ibid*, r 7(c).

²⁰⁴*Ibid*, r 7(d).

²⁰⁵*Ibid*, r 9(a).

²⁰⁶*Ibid*, r 9(b) & (c).

²⁰⁷*Ibid*, r 10.

especially given the wide digital divide between the developed and developing countries by reason of which there may not be digitally-based clearing systems in the ports of some developing countries to support complete digitalization of sea carriage transactions.²⁰⁸ It is also a bonus for the CMI Rules that all parties to the electronic bill-based transactions are barred from raising the issue of writing or signature as a defence to any action founded on such bills.²⁰⁹ However, this particular provision of Article 11 of the CMI Rules is not useful in situations where there are substantive rules of law that compulsorily insist on writing or signature in the traditional sense. This is more so given the provision of the CMI Rules which makes the carriage contract effected under them subject to any international convention or national law that would have been compulsorily applicable if a paper bill of lading had been used. It is an established principle of law that parties cannot by connivance, acquiescence or collusion confer jurisdiction (whether over issues or persons) on a court where there is none.²¹⁰ Furthermore, in situations where a piece of evidence is legally inadmissible, the court has not only the power, but also the duty to raise the issue of its inadmissibility on its own where none of the parties raises such issue, and where such evidence is wrongly admitted, it will have to be expunged from the records of the court at the end of trial.²¹¹

Despite the apparent good intention that informed the promulgation of the CMI Rules in 1990, the rules did not enjoy the support of the players in the maritime world, and this can partly explain why the rules have never been used in practice.²¹² There are a number of reasons why the CMI Rules failed to attract the support of stakeholders in the maritime industry. First, the system overburdened carriers who acted as private registries, and who interestingly were not represented on the CMI and who were not parties to the July 1990 conference at which the CMI Rules were adopted.²¹³ Secondly, there was no

²⁰⁸Laryea, *supra* note 96 at 81.

²⁰⁹CMI Rules, *supra* note 189, r 11.

²¹⁰*Okolo v UBN* (2004) 3 NWLR (Pt 593) 87 at 108.

²¹¹*Kubor v Dickson* (2013) 4 NWLR (Pt 1345) 534.

²¹²Laryea, *supra* note 97 at 82; *supra* note 55 at 149.

²¹³Laryea, *supra* note 97 at 83.

clarity as to the nature and extent of the liability or exposure of the carriers for their role as private registries under the framework.²¹⁴ Thirdly, the CMI Rules did not enjoy the support of banks which were concerned with the lack of adequate security in the private-key system.²¹⁵ Moreover, there was no comprehensive system or body in place to administer the registry system established under the CMI Rules.²¹⁶ No less importantly, there were doubts among shipping stakeholders concerning the legality of the private-key system in negotiating bills of lading. However, the CMI Rules have served as a foundation for subsequent developments. For instance, the framework for Bolero (which is a multilateral one, is based on the Bolero Rules Book, the provisions of which bind only the parties that have acceded to the Bolero system), is partially based on the CMI Rules which apart from involving third-party participation of the carrier as a mutual agent of both the holder of the electronic bill and any subsequent transferee of the title to the goods also bind only those that have agreed to use the CMI Rules as the basis of their contract.²¹⁷

2.8 National Legal responses to the Challenge of Negotiating the Electronic Bill of Lading

2.8.1 United Kingdom

Under English law, rights and liabilities acquired or incurred under a bill of lading issued on or after 16th of September, 1992 are governed mainly by COGSA.²¹⁸ Apart from the bill of lading, COGSA also applies to other transport documents such as sea waybills and ship's delivery orders.²¹⁹

The question of whether an electronic bill of lading is negotiable is one that can only be answered after a consideration of whether or not it is a document of title. For an electronic bill of lading to acquire the feature of negotiability, it has to first of all achieve

²¹⁴*Ibid.*

²¹⁵*Ibid.*

²¹⁶*Ibid.*

²¹⁷*Supra* note 115 at 12.

²¹⁸COGSA, *supra* note 90, s 1(1).

²¹⁹*Ibid.*

the status of a document of title whether under English law or some other legal frameworks. It is interesting to note that, under English law, it was not until the enactment of the *Bill of Lading Act, 1855*²²⁰ that transferees of bills of lading acquired rights or duties under the bills.²²¹ Although, Boom believes that, by the tenor of the English *Factors Act, 1889*,²²² the list of “document of title” under English law is practically not an unending one,²²³ Goldby is of the view that the electronic bill of lading could be magnanimously accommodated under the *Factors Act, 1889*, Sections 8-10 and *Sale of Goods Act 1979*,²²⁴ Sections 24, 25(1) and 47.²²⁵ For purposes of the present study, even if it is established beyond doubt that an electronic bill of lading is a document of title under English Law, it will still not be capable of transferring the title to goods subject of a sea carriage contract since it is not a transport document cognisable under COGSA. It is clearly provided that references in COGSA to the bill of lading do not include references to a document which is incapable of transfer either by endorsement or, as a bearer bill, by delivery without endorsement.²²⁶ However, the Secretary of State is empowered under COGSA to make provision by regulations for the application of the Act to electronic bills of lading.²²⁷ No such regulation has been made to this day.²²⁸ COGSA does not therefore apply to electronic bill of lading. Thus, in order to achieve a negotiation of an electronic bill of lading under English law as it presently stands, it will be necessary to set up and apply a private legal framework such as the Bolero Rulebook in which there will be a new contract of carriage with every instance of re-sale of the goods by the mechanism of novation and

²²⁰*Bill of Lading Act, 1855* (UK), 18 & 19 Vict, c. 111.

²²¹*Supra* note 115 at 17. See also the *Bill of Lading Act, 1855* (UK), 18 & 19 Vict, c. 111, s 1.

²²²*Factors Act, supra* note 31, s 4.

²²³*Supra* note 115 at 17.

²²⁴*Sale of Goods Act 1979* (UK), c 54.

²²⁵*Ibid*, ss 24, 25(1) & 47. See also *supra* note 55 at 138-9.

²²⁶COGSA, *supra* note 90, s 1(2)(a).

²²⁷*Ibid*, s 1(5).

²²⁸*Supra* note 55 at 128.

attornment by which the new contract replaces the old contract on the same terms between the carrier and the new holder.²²⁹

2.8.2 Canada

The relevant Canadian statutes that apply to the contract of carriage of goods by sea are couched in terms that connote a document in its traditional sense of paper or physical form.²³⁰ Neither the provisions of the Canadian *Bill of Lading Act* (BLA)²³¹ nor those of the Hague-Visby Rules which apply by virtue of their incorporation into domestic legislation, are on their own applicable to an electronic bill of lading without some stretches in interpretation.²³² However, there are a number of relevant Canadian statutes that have incorporated provisions meant to achieve functional equivalence and media neutrality in relation to electronic documents.²³³ But even though these statutes have placed electronic documents at the same level as paper documents, they have not solved the problem of how to achieve negotiation of electronic bills of lading in order to realize the legal and proprietary effects that are created by physical endorsement and delivery of the paper bill. It would seem that Canadian law is in the same position as English law as regards the negotiation of electronic bills of lading, and that as things stand now, a paper bill of lading is required for a buyer of goods in transit to acquire rights in relation to such goods against the carrier without a new contract of carriage being formed at each time of re-sale.²³⁴

²²⁹See generally *ibid* at 139; M Goldby, "Legislating to facilitate the use of electronic transferable records: A case study - Reforming the law to facilitate the use of electronic bills of lading in the United Kingdom" (Paper prepared for the UNCITRAL Colloquium on Electronic Commerce held in New York, 14 -16 February 2011) at 4.

²³⁰See for example MLA *supra* note 50, s 43; *Carriage of Goods by Water Act* SC 1993, c 21; *Bill of Lading Act* R.S.C., 1985, c. B-5 (BLA 1985).

²³¹BLA 1985, *supra* note 230.

²³²See *ibid*, ss 2, 3 & 4; MLA, *supra* note 50, part 5.

²³³See for example *Civil Evidence Act* 1995, c 33, ss 31.1-8; *Personal Information Protection and Electronic Documents Act* S.C. 2000, c. 5, part 2.

²³⁴See generally Goldby, *supra* note 229 at 4.

2.8.3 Nigeria

Nigeria operates a legal regime different from those of the UK and Canada since it has domesticated the Hamburg Rules.²³⁵ In Nigeria, contracts of carriage of goods by sea effected through the mechanism of bills of lading are governed by the *Admiralty Jurisdiction Act* 1991 (AJA)²³⁶ and the Hamburg Rules Act as well as the Nigerian evidence legislation which has introduced provisions that take cognizance of computer-generated evidence or documents.²³⁷ Although there are no provisions in the AJA on electronic bills of lading, the definition of “writing” and the validation of “electronic signature” in Articles 1(8) and 14(3) respectively of the Hamburg Rules would appear to be an endorsement of electronic bill of lading under the Hamburg Rules regime. This is so long as an electronic bill is not barred under some other relevant national legislation.²³⁸

It is safer to say (and this will also encourage law reform in this area) that the Nigerian law as it stands now does not contain enabling provisions for negotiation of electronic bills of lading, and that any electronic bill of lading systems meant to operate under the Nigerian law must be based on private framework that involves transfers of right through the concepts of novation and attornment whereby the old contract is terminated in favour of a new one, on the same terms between the carrier and the new holder.²³⁹

2.9 Conclusion.

The bill of lading is the most important of all the documents used in ocean transportation. The two functions of serving as the receipt for the goods received for shipment or actually shipped and as the contract of carriage or evidence of same can easily be replicated electronically. The same conclusion can be reached with respect to some other transport documents such as sea waybills and delivery orders which can conveniently be adapted to

²³⁵See Hamburg Rules Act, *supra* note 49.

²³⁶*Admiralty Jurisdiction Act* 1991 Cap. A15 LFN, 2004 (AJA).

²³⁷See EA, *supra* note 87, s 84; *Kubor v. Dickson* (2013) 4 NWLR (Pt 1345) 534.

²³⁸Hamburg Rules, *supra* note 43, art 14(3).

²³⁹See generally Goldby, *supra* note 229 at 5; *supra* note 55 at 105-7.

electronic environment. However, under the extant Nigerian, UK's and Canadian legal regimes on electronic commerce, the bill of lading's third function of serving as the document of title in relation to the goods shipped cannot be performed electronically. Achieving negotiation of an electronic bill under the laws of these jurisdictions will require private schemes that involve attornment and novation.

The difficulty of negotiability is not the only problem afflicting the electronic bill of lading. While the issue of lack of negotiability is peculiar to the electronic bill, other challenges such as the requirements of "writing", "originality" and "signature" are common to all electronic documents. The problem of the value of electronic documents as evidence for purposes of dispute settlement also falls within this head. The next chapter will deal with these issues.

Chapter 3: General Challenges Affecting Electronic Bills of Lading

Apart from the difficulty of negotiability discussed in chapter two which is specific to the electronic bill of lading, it is also susceptible to a host of other challenges that affect every other electronic communication or message. Such general challenges include issues relating to offer and acceptance. Writing and signature requirements as well as the admissibility and value of electronic communications or documents are also some of such general challenges.

3.1 Offer and Acceptance

Under the United Kingdom's (UK), Canadian and Nigerian legal systems, offer and acceptance are among the essentials of a valid contract.¹ Because of the importance of offer and acceptance in validating contractual agreements, it has always been necessary to determine if and when offer and acceptance have actually been conveyed between the parties to the agreement.² A consideration of the issue of offer and acceptance necessarily involves a consideration of the point at which a binding agreement has been reached between the parties.³ Related to this question are the integrity and authenticity of the electronic communications or messages, including ascription of responsibility or liability for automated mistakes.⁴

Electronic Data Interchange for Transport Documents (EDI) has been the major means by which electronic replication of the functions of the paper bills of lading has been tested.⁵ It involves computer to computer transmission and exchange of information or

¹See e.g. MP Furmston, *Cheshire, Fifoot and Furmston's Law of Contract*, 6th ed (Oxford, UK: Oxford University Press, 2012) at 50; S Ben-Isai & DR Percy, *Contracts: Cases and Commentaries*, 9th ed (Toronto, Canada: Carswell, 2014) at 16-8.

²AN Yiannopoulos, "General Report" in AN Yiannopoulos ed, *Ocean Bills of Lading: Traditional Forms, Substitutes, and EDI Systems* (The Hague: Kluwer Law International, 1995) 3 at 38-9.

³FF Wang, *Law of Electronic Commercial Transactions: Contemporary Issues in the EU, US and China*, 2nd ed (Oxford, UK: Routledge, 2014) at 50-2.

⁴M Goldby, *Electronic Documents in Maritime Trade: Law and Practice* (Oxford, UK: Oxford University Press, 2013) at 16.

⁵*Supra* note 2 at 20-2.

data between organizations in predetermined formats.⁶ More open networks such as the internet are now increasingly in use by the business community as alternatives to the EDI in transmission and exchange of electronic communications.⁷ Whatever business model may be adopted at any particular point by businesses, it is important to note that, successful attempts at electronic replication of the negotiability functions of the paper bill of lading have only so far been achieved through the mechanism of central registry schemes.⁸

Under the common law, from which the UK, Nigeria and Canada have a common inheritance, contracts generally need not be in any particular mode and can be effected orally or even by conduct.⁹ There is therefore no reason in principle why carriage of goods by sea contract cannot, under enabling circumstances be effected by an email attachment of the electronic bill, at least, so far as the contract between the carrier and the shipper (which does not raise the issue of negotiability of the electronic bill) is concerned. Where, for any reasons, the parties to a carriage of goods by sea contract decide to communicate by email messages, it will be necessary to ascertain the exact time at which an email message is considered “sent” or “received”.¹⁰ This is important since the communications necessarily involve independent third-party service providers whose participation may add some complexities to the question of ascription of responsibility and/or liability for the actualised or intended email messages.¹¹

To determine the exact time at which email messages are deemed sent or received or when the carriage of goods by sea contracts are ultimately formed, it will be necessary to first determine whether email communications are subject to the “postal” or “receipt” or “information” rules. Under the “information” rule, the communication is not good until

⁶*Ibid* at 20; *supra* note 4 at 24-5; HM Kindred, “Trading Internationally by Electronic Bills of Lading” (1992) 7 Banking & Finance Law Review 265 at 266.

⁷*Supra* note 4 at 25.

⁸M Goldby, “Electronic Bills of Lading and Central Registries: What is Holding Back Progress?” (2008) 17:2 Information & Communications Technology Law 125 at 126.

⁹See generally, AV Mehren, “The French Civil Code and Contract: A Comparative Analysis of Formation and Form” (1955) 15:4 La. L. Rev. 687.

¹⁰*Supra* note 4 at 21.

¹¹*Ibid* at 21.

the intended recipient has actual notice of it.¹² The “receipt” rule on the other hand makes communications or acceptance effective upon receipt even if the addressee refuses, fails or neglects to read the message.¹³ In other words, it seems that while the “information” rule insists on actual notice of the communication, the “receipt” rule is sustained on the concept of constructive notice.

Under the “postal” rule, acceptance is complete and effective once it is posted.¹⁴ One of the main explanations for the “postal” rule (which was developed to apply to acceptance meant to be transmitted by letters and telegrams) was that the Post Office is a mutual agent for both parties,¹⁵ and that communication to this agent was an effective communication to the principal.¹⁶ This is a point, by reference to which it can be argued that email communications may not always be analogous to their postal equivalents. This is because email communicators may, in many cases have different independent service providers who cannot by any stretch of interpretation be regarded as their common agents in the manner of postal offices which are communal projects or entities.

There is no consensus among commentators as to which of the above rules should apply to email communications. For example, Kadir favours the “dispatch” or “postal” rule and seeks to justify his preference on the non-instantaneous character of the electronic mail transmission, the role of independent third-party service providers as well as the non-reliability of the confirmation mechanisms.¹⁷ In contrast, Goldby’s position is somewhat of a middle ground. Although she also justified her position on the non-instantaneous nature of the electronic mail transmission and the role of independent third-party service providers, she argued that email communications are analogous to telegrams, and that the communications or acceptance is complete and effective once it reaches the network of

¹²*Carlill v Carbolic Smoke Ball* (1893) 1 Q. B. 256; T Scassa & M Deturbide, *Electronic Commerce and Internet Law in Canada* 2nd ed (Toronto, Canada: CCH Canadian Limited, 2012) at 11.

¹³*Tenas Steamship Co Ltd v Owners of the Motor Vessel Brimnes* (1974) 3 All ER 88.

¹⁴*Adams v Lindsell* (1818) B & Ald 681.

¹⁵*Household Fire And Carriage Accident Insurance Company (Limited) v Grant* (1879) 4 Ex D 216.

¹⁶R Kadir. “Communication of Acceptance in an Electronic Age” (2012), 6(6) *Advances in Natural and Applied Sciences* 715 at 716.

¹⁷*Ibid* at 721.

the recipient's internet service provider.¹⁸ At any rate, it is pertinent to state here that at the level of dispute resolution, the courts or tribunals have three construction options: where the postal rule is favoured, the e-contract is formed when and where communication or acceptance is sent;¹⁹ but where the receipt rule applies, the e-transaction can only come into being at the time when the email communication or acceptance is received and acknowledged by the offeror.²⁰ Where, however, the information rule applies, the e-contract becomes effective only upon the actual notice of the communication or acceptance by the offeror.²¹

Fortunately, most, if not all the extant electronic commerce regimes contain some presumptions regarding the point at which electronic communications including email messages are considered sent or received.²² Most electronic commerce regimes also employ the concepts of "dispatch" and "receipt" of electronic communications in determining the precise points at which offers and acceptances are communicated to the other party.²³

Under these regimes, unless the parties otherwise agree, an electronic message, which could be an offer or an acceptance, is deemed to have been communicated from the originator when it enters into an information system outside his or her control or that of his or her authorised agent, or, if the originator and the addressee are in the same information system, when it becomes capable of being retrieved and processed by the

¹⁸*Supra* note 4 at 21-2. See also C. Reed, "Electronic Commerce" in C Reed, ed, *Computer Law*, 7th ed (Oxford, UK: Oxford University Press, 2011) 272.

¹⁹*Supra* note 4 at 21.

²⁰*Supra* note 16 at 716.

²¹*Ibid* at 715-6.

²²UNCITRAL, *Model Law on Electronic Commerce*, GA Res 51/162, GAOR 51st sess, 85th plen mtg, UN Doc A/Res/51/162 (1996) (with additional article 5bis as adopted in 1998 and Guide to Enactment), art 15(1) & (2) (MLEC); *Electronic Transactions Bill*, 2011 (ETB) 19(1) & (2) (Nigeria); *Uniform Electronic Commerce Act Annotated*, 1999 s 23(2) (UECA) <http://www.ulcc.ca/en/uniform-acts-new-order/older-uniform-acts/298-josetta-1-en-gb/uniform-actsa/electronic-commerce-act/418-electronic-commerce-act-annotated-1999>.

²³See generally *supra* note 3 at 44-5.

addressee.²⁴ In the same vein, an electronic message, whether an offer or an acceptance is considered communicated to the addressee when he or she receives the message, or when the message enters into the transmission system within his or her control and such a message is capable of being retrieved or processed by him or her.²⁵ Therefore, while the determining factor in sending is “out of control” of the sender, the test of receiving is “receipt or being in a retrievable state”.

Although these provisions and the presumptions set up in them assist in determining when an electronic communication is sent or received, they fall short of clarifying the question of whether or not the “postal rule” applies to email communications.²⁶ In the UK and Canada, there is no definite legislative resolution of this issue.²⁷ The same is also true for Nigeria.

A court faced with such a question will usually fall back on the common law rules on offer and acceptance by analogy of reasoning from existing judicial decisions made in relation to similar communication devices or analogous communication technologies.²⁸ In 2010, a UK court, upon a comparison of email messages to instantaneous communications held that the “postal rule” does not apply to email communications.²⁹ *In Coco Paving Inc (1990) v Ontario (Ministry of Transportation)*,³⁰ the Ontario Court of Appeal, in relation to electronic tenders accepted that an electronic response to calls for tenders was not a compliant bid since it was received by the electronic bid submission system after the tender had closed. The Court rejected the bidder’s argument that the bid was timely and valid by operation of law because its lateness was allegedly caused by the malfunctioning of the

²⁴ETB, *supra* note 22, s 19(1); MLEC, *supra* note 22, art 15(1); UNECA, *supra* note 22, s 23.

²⁵ETB, *supra* note 22, s 19(2); MLEC, *supra* note 22, art 15(2); UNECA, *supra* note 22, s 23(2). See also *Electronic Commerce Act*, S.N.S. 2000, c. 26, s 24 (ECA) (Canada).

²⁶T Scassa & M Deturbide, *Electronic Commerce and Internet Law in Canada* 2nd ed (Toronto, Canada: CCH Canadian Limited, 2012) at 14.

²⁷*Ibid* at 14-5.

²⁸*Ibid* at 9-11.

²⁹*Thomas v BPE Solicitors* (2010) EWHC 306 (Ch).

³⁰2009 ONCA 503, 252 OAC 47.

recipient's computer system.³¹ To the best of my knowledge, it appears that the issue of whether the "postal rule" or the "information rule" or "the receipt rule" applies to email communications has never arisen before any Nigerian court.

Scassa & Deturbide, after observing that there is no definite judicial decision³² or legislative resolution³³ in Canada on the timing of acceptance by email communications, advise intending contractual parties to proactively reach some agreement on when and how an offer can be accepted by electronic means, particularly by email communications.

Under the Comité Maritime International *Rules for Electronic Bills of Lading* 1990 (CMI Rules),³⁴ the contract of transfer of right of control and transfer will come to fruition when the transferee accepts the right of control and transfer from the private key holder through the carrier who acts as the registry.³⁵ Under the Bolero Project, the contract of transfer of the electronic bill is consummated when the prospective holder receives the shipper's message to that effect, communicated through the Bolero Core Messaging Platform (BCMP) that supports the process of sending of the electronic bill from party to party without the holder interacting directly with the application or all the parties having to converge on a single platform.³⁶

3.2 Writing Requirement

Both national and international contract laws were developed at a time when paper was the main stay of contract formation.³⁷ Thus, contractual rules and principles were formulated in terms that envisage paper as the means of commercial, monetary and

³¹See also *supra* note 26 at 14.

³²*Ibid* at 12.

³³*Ibid* at 14-5.

³⁴Comité Maritime International *Rules for Electronic Bills of Lading* 1990 (CMI Rules).

³⁵*Ibid*, r 7(b).

³⁶See generally *supra* note 4 at 298-9.

³⁷ET Laryea, *Paperless Trade: Opportunities, Challenges and Solutions* (The Hague: Kluwer Law International, 2003) at 3.

proprietary representations, communication and record keeping.³⁸ This explains why in many jurisdictions, certain contracts are required to be in written forms in order to be valid and binding.³⁹ The legal requirement in many a jurisdiction that certain contracts must be in writing has been identified as the major obstacle to the use of electronic bill of lading in carriage of goods by sea contracts.⁴⁰ This is because the legal requirement of written documentation for validity and bindingness of contracts in many areas of commercial transactions has dampened the confidence of stakeholders to adopt electronic commercial practices.⁴¹ Fortunately, enormous efforts have already been made to create enabling legal frameworks that will facilitate international electronic commerce.⁴²

3.2.1 CMI Rules on the Writing Requirement

Under the CMI Rules, an electronic message has the same force and effect to the same extent as it would have had if the receipt message were contained on a paper bill of lading.⁴³ The CMI Rules are voluntary, but once adopted, the parties are estopped from challenging the validity of the contract on the ground that it was not evidenced in writing in accordance with a requirement of a local law, custom or practice.⁴⁴ It is doubtful whether the fact that a party to the contract refuses, fails or neglects to raise the issue of invalidity of such a contract or electronic message will save such a contract or message if made in violation of some positive law. The CMI Rules only bars the parties from raising it. Such issues can still be raised by the courts themselves. The only requirement is that the courts afford the parties the opportunity to address them on such issues when raised *suo muto*.⁴⁵ It would have been a better provision to say that such issues cannot be raised

³⁸*Ibid.*

³⁹*Supra* note 4 at 26.

⁴⁰See generally *supra* note 2 at 32-3.

⁴¹AC Vieira, *Electronic Bills of Lading* (LLM Thesis, University of Nottingham School of Law, 1999) [unpublished] at 17.

⁴²*Supra* note 37 at 3.

⁴³CMI Rules, *supra* note 34, r 4(d).

⁴⁴*Ibid*, r 11.

⁴⁵*Barrister Anthony Kayode Towoju & Others v The Governor of Kwara State & Others* (2005) LPELR-5390 (CA) at 41-42; *Towoju v Gov., Kwara State* (2005) 18 NWLR (Pt. 957) 324.

at all in any suits or proceedings in which the electronic contract or message initiated under the CMI Rules is in issue. But then, such a provision could be interpreted as being overreaching since it is trite law that parties cannot by agreement oust the jurisdiction of the court or confer one where there is none.⁴⁶ A party to the contract is, however at liberty, at any time before the delivery of the goods to request or demand issuance of a paper bill of lading from the carrier.⁴⁷

3.2.2 Hague – Visby Rules on the Writing Requirement

The *International Convention for the Unification of certain Rules relating to Bills of Lading* of 25 August 1924 as Amended by the *Brussels Protocol 1968* [Hague-Visby Rules]⁴⁸ is the regime applicable in Canada and UK by virtue of Canada's *Marine Liability Act* of 2001⁴⁹ and the UK's *Carriage of Goods by Sea Act 1971*.⁵⁰

There is no provision of the Hague-Visby Rules expressly requiring that a bill of lading be evidenced in or by writing. However, the concept of “writing” is not foreign to the Hague-Visby Rules. For example, the notice of loss of or damage to the goods to be given by the consignee to the carrier or his agent at the port of discharge must be in writing.⁵¹ Also, the leading marks necessary for identification of the goods are required to be furnished in writing by the shipper to the carrier.⁵² Further, under those Rules, “contract of carriage” applies only to contracts of carriage covered by a bill of lading or any similar document of title.⁵³ The conventional idea of writing is that of information recorded by

⁴⁶*Okolo v UBN Ltd* (2004) 3 NWLR (Pt 859) 87 at 108.

⁴⁷CMI Rules, *supra* note 34, r 10.

⁴⁸*International Convention for the Unification of certain Rules relating to Bills of Lading*, 25 August 1924, 120 UNTS 155 (entered into force 2 June 1931) and the 1979 *Protocol to Amend the International Convention for the Unification of Certain Rules Relating to Bills of Lading as Modified by the Amending Protocol of 23 February 1968* [Hague-Visby Rules].

⁴⁹*Marine Liability Act* (S.C. 2001, c. 6), s 43 (MLA).

⁵⁰*Carriage of Goods by Sea Act 1971* (UK), c 19.

⁵¹Hague-Visby Rules, *supra* note 48, art 3(6).

⁵²*Ibid*, art 3(3)(a)& (b).

⁵³*Ibid*, art 1(b).

making marks on paper.⁵⁴ A number of provisions of the Hague-Visby Rules contain terms that appear to have been influenced by this traditional understanding of writing. While Article 4(5)(a) provides that unless the nature and value of such goods have been declared by the shipper before shipment and “inserted in the bill of lading,” Article 4(5)(f) provides that the declaration mentioned in sub-paragraph (a), “if embodied in the bill of Lading” shall be prima facie evidence. But all these writing and/or document-induced provisions do not translate into a clear demand that a bill of lading be in writing. But it is also arguable that national legislation that imposes a requirement of writing as a condition precedent to the enforceability of a bill of lading will be upheld even in jurisdictions that operate the Hague-Visby Rules since there is nothing in the latter to render such national legislation inoperative.

3.2.3 Hamburg Rules on the Writing Requirement

The *United Nations Convention on the Carriage of Goods by Sea* of 31 March 1978 [Hamburg Rules]⁵⁵ applies to Nigeria by virtue of the *United Nations Convention on Carriage of Goods by Sea (Ratification and Enforcement) Act*, 2005 (Hamburg Rules Act)⁵⁶ and is a more progressive and modern international instrument than either the Hague-Visby Rules or their predecessor, the *International Convention for the Unification of Certain Rules Relating to Bills of Lading* of 25 August 1924 [Hague Rules]⁵⁷ since it is more accommodating to modern technological advances than the other two instruments.⁵⁸

Here also, just as under the Hague-Visby Rules, there is no express provision mandating a bill of lading to be in written form. But it is a document which evidences a contract of carriage by sea and the taking over or loading of the goods by the carrier, and

⁵⁴*Supra* note 4 at 26.

⁵⁵*United Nations Convention on the Carriage of Goods by Sea*, 31 March 1978, 1695 UNTS 3 (entered into force 1 November 1992) [Hamburg Rules].

⁵⁶See *United Nations Convention on Carriage of Goods by Sea (Ratification and Enforcement) Act* No. 19 of 2005 (Hamburg Rules Act).

⁵⁷*International Convention for the Unification of certain Rules relating to Bills of Lading*, 25 August 1924, 120 UNTS 155 (entered into force 2 June 1931) [Hague Rules].

⁵⁸See e.g. the provision of art 14(3) of the Hamburg Rules which accommodates electronic signatures: There are no equivalent provisions in either the Hague Rules or the Hague-Visby Rules.

by which the carrier undertakes to deliver the goods against surrender of the document.⁵⁹ There are however a number of sundry issues in relation to which writing is a mandatory requirement. For instance, the notice of loss or damage, specifying the general nature of such loss or damage required from the consignee to the carrier in relation to the goods must be in writing.⁶⁰ Further, any special agreement under which the carrier assumes obligations not imposed by the Hamburg Rules or waives rights conferred by them affects the actual carrier only if expressly agreed to by him and in writing.⁶¹ The provision of Article 14(3) of the Hamburg Rules which creates room for written signatures on a bill of lading suggests that writing is an important aspect of the form a bill of lading takes under the Rules. But the concept of writing informing the relevant provisions of the Hamburg Rules goes beyond the traditional understanding of writing on a paper, and includes electronic communications. Thus, there is room for electronic signatures which point to the acceptance of electronic documentation or bill of lading.⁶² This position is re-enforced by the definition of writing under the Hamburg Rules as including “inter alia, telex and telegram”.⁶³ The elastic nature of the definition demonstrates that the list of what constitutes writing under the Hamburg Rules is not exhaustive and can include digital representations. However, as far as electronic signatures, and by implication electronic bills of lading are concerned, they are valid only so long as they are not inconsistent with the law of the country where the bill of lading is issued.⁶⁴ It is noteworthy that, in determining the validity of an electronic signature or bill of lading under the Hamburg Rules, it is only the laws of the country of the issue of the bill of lading that matters. The implication is that even in cases where electronic signatures and/or bill of lading are not allowed in the jurisdictions of the ports of discharge, such signatures or bill of lading will still be valid and enforceable so long as they are cognizable under the laws of the country where the bill of lading is issued. The result is that any stipulation in the bill of lading

⁵⁹Hamburg Rules, *supra* note 55, art 1(7).

⁶⁰*Ibid*, art 19(1).

⁶¹*Ibid*, art 10(3).

⁶²*Ibid*, art 14(3).

⁶³*Ibid*, art 1(8).

⁶⁴*Ibid*, art 14(3).

covered by the Hamburg Rules to the effect that the laws of a country of the port of discharge will be applicable to the contract of carriage will be void if electronic bills of lading and/or signatures are allowed in the country of issue of the bill but prohibited in the country of port of discharge. This is because such stipulation will be offensive for derogating directly or indirectly, from the provisions of the Hamburg Rules.⁶⁵

3.2.4 Rotterdam Rules on the Writing Requirement

The *Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea* of 11 December 2008 [Rotterdam Rules]⁶⁶ are a great improvement on the Hague, Hague-Visby and Hamburg Rules, particularly from the point of view of accommodations of the demands and realities of the developments in information and communication technology.⁶⁷ There is no provision of the Rotterdam Rules stating that a bill of lading must be in a written form. However, it would appear that the traditional conception of written document is endorsed under the Rotterdam Rules. First, there is the dichotomy between “transport document” and “electronic transport record”.⁶⁸ The two are conceived under the Rotterdam Rules as equal partners in functionality.⁶⁹ The fact that the Rotterdam Rules, while creating room for electronic documentation and electronic bill of lading spared the traditional conceptions of document and writing can be better appreciated by reference to the provisions of Article 54(2). Under this paragraph, while permissive variations to the contract of carriage are to be “stated” in negotiable or non-negotiable transport documents, such variations are meant to be “incorporated” into negotiable or non-negotiable electronic transport records. This is further underscored by the fact that while transport documents are required to be signed by the carrier or his agent, it is

⁶⁵*Ibid*, art 23(1).

⁶⁶The *Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea* 11 December 2008, 63 UNTS 122 [Rotterdam Rules].

⁶⁷T Nikaki & B Soyer, “A New International Regime for Carriage of Goods by Sea: Contemporary, Certain, Inclusive AND Efficient, or Just Another One for the Shelves?” (2012) 30:2 Berkeley J. Int'l Law 303 at 319.

⁶⁸See for instance Rotterdam Rules, *supra* note 66, art 1(9), (10)(b), (11), (18), (21), (22) and (23) & arts 6(2)(b), 10, 25(4), 35 and 39(1) & (2)(a).

⁶⁹*Ibid*, arts 10 & 58(3)(a).

provided that “the electronic transport record shall include the electronic signature of the carrier or that of a person acting on its behalf”.⁷⁰ Furthermore, whereas, the words “incorporated” and “shall include” as used under the Rotterdam Rules in regard to electronic transport records create the image of digital representations,⁷¹ the words “stated” and “signed” used in relation to transport documents elicit the image of physical and tangible acts on a paper.⁷²

Although the traditional notions of document and writing are implicitly recognised and endorsed under the Rotterdam Rules, their adoption does not constitute any obstacle to the use of electronic documentation or electronic bill of lading since document and writing in the conventional sense are conceived not as prohibitive against, but as alternative to electronic documents and electronic bills of lading.

3.2.5 UNCITRAL Model Law on Electronic Commerce 1996 and the Writing Requirement

The United Nations Commission on International Trade Law (UNCITRAL), established in 1966 has its central mandate of ensuring unification and harmonization of international trade law.⁷³ One of the results of its harmonization and unification efforts was the birth of MLEC. One of the cardinal goals of MLEC is to encourage uniformity of law by affording states a legislative model from which to achieve functional equivalence and media neutrality in their domestic laws between electronic communications and paper documents, particularly in relation to writing requirement.⁷⁴ A number of countries (including Australia, France, India, Hong Kong, Ireland, Jordan, Mauritius, Mexico, New

⁷⁰*Ibid*, art 38.

⁷¹*Ibid*, arts 54(2) & 38(2) respectively.

⁷²*Ibid*, arts 54(2) & 38(1) respectively.

⁷³See generally JAE Faria, “Uniform Law and Functional Equivalence: Diverting Paths or Stops Along the Same Road? Thoughts on A New Internal Regime for Transport Documents” (2011) 2:1 *Elon Law Review* 1 at 1-3.

⁷⁴*Supra* note 4 at 26.

Zealand, Pakistan, Philippines, Republic of Korea, Singapore, Slovenia, South Africa, Thailand and Venezuela) have adopted legislations based on the model law.⁷⁵

The challenge of writing requirement is addressed by Articles 5 and 6 of MLEC. Article 5, which is a general provision, states that information shall not be denied legal effect, validity or enforceability solely on the grounds that it is in the form of a data message. It is further specifically provided that where the law requires information to be in writing, that requirement is met by a data message if the information contained therein is accessible so as to be usable for subsequent reference.⁷⁶ It is of no moment, for the purposes of taking advantage of this provision, whether this requirement is in the form of an obligation or whether the law simply provides consequences for the information not being in writing.⁷⁷

3.3 Signature Requirement

3.3.1 Justification for the Signature Requirement

Primarily, signatures serve the purpose of authentication of contents of a document, a confirmation of personal involvement of the person signing the document as well as an assurance of his consent to and/or a guarantee of his commitment to the contents of same.⁷⁸

Some transactions are required under the law to be signed before they are considered legally enforceable. A typical example of such a law includes the English *Statute of Fraud* of 1677 under which a contract of guarantee in the UK must be in writing.⁷⁹ Also, the *Statute of Frauds* in the United States of America (US) requires that contracts for sale of goods in excess of \$5000 dollars must be signed.⁸⁰ In such cases, the focus of

⁷⁵AG Hamid, "The Legal Implications of Electronic Bills of Lading: How Imminent is the Demise of Paper Documents?" (2004) 33:3 The Journal of the Malaysian Bar 1 at 4.

⁷⁶MLEC, *supra* note 22, art 6(1); *supra* note 4 at 26-7.

⁷⁷MLEC, *supra* note 22, art 6(2).

⁷⁸*Supra* note 4 at 27.

⁷⁹*Ibid.*

⁸⁰TJ Smedinghoff, "The Legal Challenges of Implementing Electronic Transactions" (2008) 4:1 UNIFORM Commercial Code Law Journal 1 at 5 &16.

electronic transaction law is to determine the electronic procedural and safeguard equivalents to satisfy the functions of signatures in paper-based transactions.⁸¹ Even where there is no mandatory requirement for a signature in relation to a particular transaction, parties in most cases still go ahead to sign the transaction so as to provide additional assurance of their commitment to the terms of the agreement or to reduce or remove any incidents of legal uncertainty that may hang over such a transaction.⁸²

Whether from a legal requirement or just out of abundance of caution, whatever electronic signature that is adopted must be legally valid and enforceable.⁸³ A functionally valid electronic signature usually, must possess three elements. First, it could be a sound, symbol or process. Secondly, it must be attached or logically associated with the electronic record. Further, it must be made with the requisite intent to sign and/or be bound by it.⁸⁴ Instances of ways by which an electronic signature can be effected include:

A name typed at the end of an e-mail message by the sender; a digitized image of a handwritten signature that is attached to an electronic document; a secret code, password, or PIN to identify the sender to the recipient (such as that used with ATM cards and credit cards); a unique biometrics-based identifier, such as a fingerprint, voice print, or a retinal scan; a mouse click (such as on an “I accept” button); a sound (e.g., the sound created by pressing “9” on your phone to agree); and a “digital signature” (created through the use of public key cryptography).⁸⁵

The list of methods by which an electronic signature can be achieved under most electronic transaction laws is usually open ended, understandably to leave room for future additions that may come about as a result of further developments in technology.⁸⁶ This is

⁸¹*Ibid* at 5-6.

⁸²*Ibid* at 16.

⁸³*Ibid*.

⁸⁴See generally *ibid*.

⁸⁵See generally *ibid* at 16-7.

⁸⁶See generally *ibid* at 17.

also the case with the definition of electronic signature in the UK's electronic transaction laws.⁸⁷

The UK's *Electronic Communications Act 2000* defines electronic signature as:

...so much of anything in electronic form as- (a) is incorporated into or otherwise logically associated with any electronic communication or electronic data; and (b) purports to be so incorporated or associated for the purpose of being used in establishing the authenticity of the communication or data, the integrity of the communication or data, or both.⁸⁸

Electronic signature is defined in part 2 of Canada's *Personal Information Protection and Electronic Documents Act* of 2005⁸⁹ as "...a signature that consists of one or more letters, characters, numbers or other symbols in digital form incorporated in, attached to or associated with an electronic document".⁹⁰ The qualification of "signature" with the article "a" in the above definition has further imbued it with the quality of an indefinite scope.

Under Nigeria's *Electronic Transaction Bill, 2011*,⁹¹ the definition of electronic signature, short and simple as it is, equally imports an indefinite scope. It "means information in electronic form that a person has created or adopted in order to sign a document and that is in, attached to or associated with a document."

Which of the various possible methods of electronic signification is adopted at any given time depends on the nature of the transaction involved and the level of security

⁸⁷See for example *Electronic Communications Act 2000* (UK), c 7, s 7 (UK); G Jones, "Failings in the Treatment of Electronic Signatures" (2003) 1:1 Hertfordshire Law Journal 101 at 102.

⁸⁸*Electronic Communications Act 2000* (UK), c 7, s 7(2).

⁸⁹*Personal Information, Protection and Electronic Documents Act*, S.C. 2000, c. 5 (PIPEDA).

⁹⁰*Ibid*, s 13.

⁹¹See ETB, *supra* note 22, s 23.

required.⁹² It is as much a business question as it is a legal one⁹³ since authentication is the ultimate goal of all signatures.⁹⁴ Thus, apart from the legal validity and admissibility of electronic messages, proper authentication procedures establish and retain the confidence of businesses in their decisions to place reliance on the sources and integrity of electronic messages.⁹⁵ This is why digital signatures are preferred by stakeholders, since they have a high level of secure authentication of electronic messages that allows for the determination of the source and integrity of electronic messages with a high level of certainty.

3.3.2 CMI Rules on the Signature Requirement

The CMI Rules, as earlier indicated in chapter 2 do not have the force of law, but only become operational if incorporated into the contract by agreement of the parties.⁹⁶ The legal requirements of writing and signature are addressed by way of estoppel. It is provided that, by adopting the CMI Rules, the parties agree to bind themselves not to raise any defence that their contract is not in writing or signed, and is therefore estopped from so doing.⁹⁷ The major handicap of the provision of the CMI Rules is that there are no clear guidelines for determination of risk and liability in the event of system failure.⁹⁸ Under Article 11, any national or local law, custom or practice by reason of which a contract of carriage is required to be evidenced in writing and signed is by agreement of the parties deemed satisfied by the adoption of the procedures under the CMI Rules.⁹⁹ This however does not affect the application of any international convention or national law which would have been compulsorily applicable if a paper bill of lading had been issued to cover the

⁹²*Supra* note 4 at 28.

⁹³JY Gliniecki & CG Ogada, "Legal Acceptance of Electronic Documents, Writings, Signatures, and Notices in International Transportation Conventions: A Challenge in the Age of Global Electronic Commerce" (1992-1993) 13 Nw. J. Int'l L. & Bus. 117 at 121.

⁹⁴See generally *supra* note 80 at 18.

⁹⁵*Supra* note 93 at 121.

⁹⁶A Delmedico, "EDI Bills of Lading: Beyond Negotiability" (2003) 1:1 Hertfordshire Law Journal 95 at 97.

⁹⁷CMI Rules, *supra* note 34, r 11.

⁹⁸*Supra* note 96 at 98.

⁹⁹*Ibid* at 97.

contract of carriage.¹⁰⁰ The matters envisaged by Article 6 of the CMI Rules would appear to be substantive issues that are not specific to any particular mode of contract formation, otherwise the provision would be in conflict with the provision of Article 11 which submerges all national or local laws, customs or practices requiring writing and signatures under the agreement of the parties. It also stands to reason that where a paper bill of lading is demanded and issued pursuant to the provisions of Article 10(a) of the CMI Rules, the parties will be bound to observe all the formal requirements that pertain to traditional paper bill, particularly the writing and signature requirements, since the exercise of the paper option will cancel the EDI procedure with all its accompanying rights and privileges.¹⁰¹

3.3.3 Hague – Visby Rules on the Signature Requirement

The Hague-Visby Rules do not recognize any specific medium of contract formation in carriage of goods by sea.¹⁰² Gliniecki & Ogada, relying on a study conducted by an international sub-committee of the CMI took the view that electronic documentation falls outside the scope of the application of the Hague-Visby Rules since they do not contain any specific requirement regarding the media by which a bill of lading may be issued or specifically permit the use of electronic commerce.¹⁰³ It is however arguable that what the Hague-Visby Rules do not say is as important as what they say. The Hague-Visby Rules do indeed contain some provisions specifically requiring writing in respect of the matters to which those provisions relate. Article 3(6) on notice of loss or damage and the general nature of such loss or damage is a handy example. It can therefore be contended that, since the Hague-Visby Rules contain specific provisions on writing in regard to some matters, the fact that they do not expressly insist on writing and/or any particular medium in relation

¹⁰⁰CMI Rules, *supra* note 34, r 6.

¹⁰¹*Ibid*, r 10(d).

¹⁰²*Supra* note 93 at 139.

¹⁰³*Ibid* at 139-40. *Accord* K Mbiah, “Updating the Rules on International Carriage of Goods by Sea: the Rotterdam Rules”, online: <<http://www.comitemaritime.org/Uploads/Rotterdam%20Rules/Paper%20of%20Kofi%20Mbiah.pdf>> (which argued at pages 6-8 that the Hague-Visby Rules do not create opportunities for the utilization of electronic transport records or electronic bill of lading).

to formation of sea carriage contract and/or the bill of lading appears to suggest that electronic bills of lading could legitimately be accommodated.

3.3.4 Hamburg Rules on the Signature Requirement

According to Gliniecki & Ogada, the Hamburg Rules “contain a compromise recognition of electronic commerce”.¹⁰⁴ The bill of lading, under the Hamburg Rules, is merely defined as a document which evidences a contract of carriage by sea and the taking over or loading of the goods by the carrier, and by which the carrier undertakes to deliver the goods against surrender of the document.¹⁰⁵ The Hamburg Rules do not explicitly require that the bill of lading – defined as a “document” - must be in paper written form. Article 14(3) which suggests that the signature in or on a bill of lading maybe in “handwriting”, further envisages that it could be “... in symbols, or made by any other mechanical or electronic means, if not inconsistent with the law of the country where the bill of lading is issued.”¹⁰⁶ Further, “writing” is defined inclusively in Article 1(8) as including inter alia, telex and telegram.¹⁰⁷ Gliniecki & Ogada are of the view that the tenor of the definition suggests a bias in favour of a paper-based document.¹⁰⁸ At any rate, they did not fail to acknowledge that the Hamburg Rules are information and communication technology friendly. As noted above, the provision relating to signature expressly creates room for electronic signatures.¹⁰⁹ The express recognition of electronically-produced signature is an important advance over the Hague and Hague-Visby Rules.¹¹⁰ However, the provision for electronic signatures cannot be taken advantage of if the law of the country of issue of the bill of lading does not recognise them.¹¹¹ And it will not make any difference that there is a choice of law clause in favour of a country of the port of discharge since such a stipulation will

¹⁰⁴*Supra* note 93 at 140.

¹⁰⁵Hamburg Rules, *supra* note 55, art 1(7).

¹⁰⁶*Ibid*, art 14(3).

¹⁰⁷*Ibid*, art 1(8).

¹⁰⁸*Supra* note 93 at 140.

¹⁰⁹Hamburg Rules, *supra* note 55, art 14(3).

¹¹⁰*Supra* note 93 at 140.

¹¹¹*Ibid*.

be offensive against the provisions of Article 23(1) for derogating from the provisions of the Hamburg Rules, particularly those of Article 14(3).

3.3.5 Rotterdam Rules on the Signature Requirement

The Rotterdam Rules contain sufficient provisions on electronic documentations and make distinctions between “transport document” and “electronic transport record”.¹¹² Each can be used depending on the agreement of the parties to the contract of carriage. Electronic transport document is further divided into negotiable and non-negotiable electronic transport documents.¹¹³ Signatures are provided for under Article 38 of the Rotterdam Rules. While the carrier or its agent physically signs the transport document,¹¹⁴ the electronic transport record shall include the electronic signature of the carrier or that of his agent.¹¹⁵ To ensure greater authenticity, it is required that the electronic signatures must identify the signatory in relation to the electronic transport records and show the authorisation of the transport records by the carrier.¹¹⁶ Unlike many legal instruments which aim to circumvent existing paper-based legislation requiring written signatures, by awarding omnibus legal validity to all electronic documents, Article 38 of the Rotterdam Rules acknowledge electronic signatures without reference to the status of such signatures under other legislation. This is understandable since it is substantive legislation in its own right and not electronic commerce legislation per se that is meant to validate electronic communications or commerce in relation to other legislation or rules of law and practice.¹¹⁷

¹¹²See for instance Rotterdam Rules, *supra* note 66, art 1(9), (10)(b), (11), (18), (21), (22) and (23) & arts 6(2)(b), 10, 25(4), 35 and 39(1) & (2)(a).

¹¹³See e.g. Rotterdam Rules, *supra* note 66, art 1(19) & (20).

¹¹⁴*Ibid*, art 38(1).

¹¹⁵*Ibid*, art 38(2).

¹¹⁶*Ibid*.

¹¹⁷See generally *supra* note 80 at 5-8.

3.3.6 UNCITRAL Model Law on Electronic Commerce, 1996 and the Signature Requirement

As has been indicated elsewhere, the main aim of MLEC is to encourage e-commerce by ensuring functional equivalence and media neutrality for electronic communications or documents. Thus, in any case in which the law requires the signature of a person, MLEC acknowledges and validates an electronic signature so long as the method used to identify the signatory and indicate his or her authorisation of the contents of the data message is reliable and appropriate for the purpose for which the data message was generated or communicated.¹¹⁸ This is so whether the requirement is in the form of an obligation or whether the law simply provides consequences for the absence of a signature.¹¹⁹

3.3.7 UNCITRAL Model Law on Electronic Signatures 2001 and the Signature Requirement

The UNCITRAL Model Law on Electronic Signatures, 2001 (MLES)¹²⁰ is one of the UNCITRAL instruments that covers electronic signatures, and applies when they are used within the context of commercial activities.¹²¹ Article 6 of the MLES contains provisions similar to those under Article 7 of MLEC. Under it, for whatever purpose a law requires a signature of a person, that requirement is met in relation to a data message if an electronic signature is used that is as reliable as was appropriate for the purpose for which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement.

While Article 6(1) of MLES specifically provides that:

Where the law requires a signature of a person, that requirement is met in relation to a data message if an electronic signature is used that is as reliable as was appropriate for the purpose for

¹¹⁸MLEC, *supra* note 22, art 7(1).

¹¹⁹MLEC, *supra* note 22, art 7(2).

¹²⁰UNCITRAL, *Model Law on Electronic Signatures*, GA Res 56/80, GAOR 56th sess, 85th plen mtg, UN Doc A/Res/56/80 (2001) (MLES).

¹²¹*Supra* note 4 at 28.

which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement,

Articles 7 of MLEC expressly provides thus:

Where the law requires a signature of a person, that requirement is met in relation to a data message if: (a) a method is used to identify that person and to indicate that person's approval of the information contained in the data message; and (b) that method is as reliable as was appropriate for the purpose for which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement.(2) Paragraph (1) applies whether the requirement therein is in the form of an obligation or whether the law simply provides consequences for the absence of a signature.¹²²

An electronic signature will be considered reliable if its creation data are, within the context in which they are used, solely linked to the signatory, or the signature creation data were, at the time of signing, under the sole control of the signatory, and any alteration to the electronic signature made after the time of signing is detectable, and where a purpose of the legal requirement for a signature is to provide assurance as to the integrity of the information to which it relates, any alteration made to that information after the time of signing is detectable.¹²³ The reliability of the electronic signature is also permitted to be proved (or challenged) by other ways than those established under the MLES.¹²⁴ This flexibility allows for accommodation of other methods of proof of reliability of electronic signature that might become available in future as a result of further developments in information and communications technology.¹²⁵

Articles 8-12 of MLES cover rules on specific types of signature, particularly those that involve the use of a public key infrastructure (PKI) and certification of the link between the signatory and signature-creation data.¹²⁶ Articles 8, 9 and 11 of MLES govern

¹²²MLES, *supra* note 120, art 6(1) & (2); MLEC, *supra* note 22, art 7(1) & (2).

¹²³MLES, *supra* note 120, art 6(3).

¹²⁴*Ibid*, art 6(4).

¹²⁵See *ibid*, art 3; *supra* note 4 at 28-9.

¹²⁶MLES, *supra* note 120, art 3; *supra* note 4 at 29.

respectively the responsibilities and liabilities of the signatory, the certification service provider and the reliant party in regard to the electronic signatures.¹²⁷ While Article 10 lists some of the relevant factors to consider in assessing the trustworthiness of the systems, procedures and human resources employed in the certification services, Article 12 lays down rules on recognition of foreign certificates and electronic signatures.¹²⁸

3.4 Admissibility and Evidential Value of Electronic Communications

The problems of admissibility and evidential value of electronic data (or communications or messages) are some of the many challenges facing electronic transactions.¹²⁹ It can be contended that, in real and practical terms, the most fundamental of all the legal challenges facing electronic commerce are the questions of whether or not electronic data will be admissible in courts or for purposes of dispute resolution, and the evidential value or weight to be assigned to them even when considered admissible.¹³⁰ The remaining central question of relevance¹³¹ is one that is not to any reasonable extent tied to the format that a piece of evidence takes, but rather to its relation to the questions at issue in trials. In other words, the question of relevance of a piece of evidence will essentially be the same whether it is in paper or electronic form.¹³²

It is interesting to note that lack of trust of business stakeholders in electronic transactions or data can equally be safely traced to the uncertainties that surround electronic transactions regarding whether electronic data or messages will be accepted in courts or other dispute settlement fora as proof of such electronic transactions should disputes arise between the parties about the existence of the electronic transactions and/or

¹²⁷MLES, *supra* note 120, arts 8, 9 & 11 respectively.

¹²⁸*Supra* note 4 at 29.

¹²⁹*Supra* note 37 at 3.

¹³⁰See generally, C Reed, "The Admissibility and Authentication of Computer Evidence - A Confusion of Issues" (Paper delivered at the 5th BILETA Conference of the British and Irish Legal Technology Association, 03 April 2005) [unpublished] at 6.

¹³¹L Duranti, C Rogers & A Sheppard, "Electronic Records and the Law of Evidence in Canada: The Uniform Electronic Evidence Act Twelve Years Later" (2010) 70 *The Journal of the Association of Canadian Archivists* 95 at 119.

¹³²See generally *supra* note 37 at 28.

their terms. It will therefore be stating the obvious to say that fashioning and implementation of appropriate evidential policies and legal rules in relation to electronic data or messages, particularly regarding originality and best evidence rule, authentication, admissibility and weight and hearsay among others, will be a condition precedent to the smooth running of electronic commerce.¹³³

The question of admissibility of an electronic document essentially depends on its categorization. Electronic documents are, for purposes of dispute resolution, classified as either real evidence or hearsay or a copy of another document.¹³⁴ Where the admissibility of a document as real evidence (which speaks for itself) is in issue, the appeal is to the process by which it was created.¹³⁵ If the document is hearsay for being a record of what someone said, then, the truth or otherwise of that statement and the weight to be assigned to it will be determined within the context of the rules on documentary hearsay in the jurisdiction concerned,¹³⁶ and the maker of such statement may have to be called as a witness in the proceedings.¹³⁷ Where the electronic document is classified as a copy of another relevant document, the question will then turn on the accuracy of the copying and the whereabouts of the original.¹³⁸ The admissibility of an electronic document and its weight as a piece of evidence in dispute resolution will ultimately be resolved by reference to the process and technology by which such a document was created and stored or managed.¹³⁹

There are three categories of computer documentary outputs. The evidence is hearsay where the documents and records are produced by the computer from information

¹³³See generally *supra* note 131 at 95.

¹³⁴S Hedley, *The Law of Electronic Commerce and the Internet in the UK and Ireland* (London, UK: Cavendish Publishing Limited, 2006) at 80.

¹³⁵*Ibid.*

¹³⁶*Ibid.*

¹³⁷*Supra* note 131 at 101.

¹³⁸*Supra* note 134 at 80.

¹³⁹See generally *ibid*; *supra* note 37 at 12.

supplied to it either directly by human beings or indirectly through other computers.¹⁴⁰ Such electronic documents or records will not be admissible except they fall within any of the recognised exceptions to the rule against hearsay.¹⁴¹ Where the computer outputs are generated by the computer as a result of automatic recording or perception or sensing of events, incidents or actions, or from scientific calculations or analysis, they will be treated as real evidence and are admissible.¹⁴² Such electronic documents will be admitted as exceptions to the hearsay rule because the computer is being used as a calculation or scientific tool or because the electronic document is an autonomous output of a computer.¹⁴³

However, the computer outputs may as well be a combination of real evidence (automatic computer outputs) and human imputed data and will also be caught up by the hearsay rule.¹⁴⁴ Examples include secondary records such as statements of accounts which will usually be a combination of automatically generated bank charges and human made chequing entries.¹⁴⁵ Computer-to-computer communications such as already used EDI, unless statutorily excepted, are also hearsay if they have human inputs.¹⁴⁶ This is so even if the human inputs or entries had been automatically stored by or in the computer.¹⁴⁷

3.4.1 The Requirement to Produce the Original Document

Because of the credibility accorded to records in ancient times, and to prevent their fraudulent alteration, Roman law, which later came to influence the majority of the law in European countries, imposed strict formal conditions in the creation and structuring of original records, and a requirement of authentication by experts in cases where records

¹⁴⁰*Supra* note 37 at 13.

¹⁴¹*Ibid.*

¹⁴²*Ibid.*

¹⁴³*Ibid.*

¹⁴⁴*Ibid* at 15.

¹⁴⁵See generally *ibid.*

¹⁴⁶*Ibid* at 15-6.

¹⁴⁷*Ibid* at 16.

were offered to prove issues in controversy before the courts.¹⁴⁸ These requirements were later refined into the best evidence and the authentication rules that we have today.¹⁴⁹ While the best evidence rule demands that an original record be submitted as evidence whenever possible, the authentication rule requires either direct or circumstantial evidence to prove the integrity of record offered as evidence.¹⁵⁰

In disputes generally, the best evidence required to prove a fact at issue is the original document except where a successful case is made for the application of one or more of the exceptions to this rule.¹⁵¹ Such exceptions are contained for example in Section 89 of the Nigerian *Evidence Act*, 2011 which specifically provides that:

Secondary evidence may be given of the existence, condition or contents of a document when – (a) the original is shown or appears to be in the possession or power (i) of the person against whom the document is sought to be proved, or (ii) of any person legally bound to produce it, and when after the notice mentioned in section 91 such person does not produce it; (b) the existence, condition or contents of the original have been proved to be admitted in writing by the person against whom it is proved or by his representative in interest; (c) the original has been destroyed or lost and in the latter case all possible search has been made for it; (d) the original is of such a nature as not to be easily movable; (2) the original is a public document within the meaning of section 102: (f) the original is a document of which a certified copy is permitted by this Act or by any other law in force in Nigeria, to be given in evidence; (g) the originals consist of numerous accounts or other documents which cannot conveniently be examined in court, and the fact to be proved is the general result of the whole collection; or (h) the document is an entry in a banker's book.¹⁵²

There is a consensus among scholars that the nature of electronic records is such that they do not respond to the traditional evidential rules of best evidence and

¹⁴⁸*Supra* note 131 at 96.

¹⁴⁹*Ibid* at 96-7.

¹⁵⁰*Ibid* at 96.

¹⁵¹*Supra* note 37 at 23; *Evidence Act*, 2011, ss 83, 85, 86 & 88 (EA) (Nigeria).

¹⁵²EA, *supra* note 151, s 89. See also *supra* note 37 at 23-4.

authentication.¹⁵³ Duranti, Rogers & Sheppard, as a reason for their call for reform, stated that there is no original in the digital environment, and that the authentication rule is inadequate since it is impossible to establish that an electronic record is the same as its instantiation by simply looking at the record itself, without reference to an unbroken line of traces left in the course of dealings in or with the record or to the account of a professional who had legitimate custody of them.¹⁵⁴ Laryea is equally of the view that there can be no original electronic records given the manner in which computer records are created, maintained and communicated.¹⁵⁵ Currie and Coughlan expressed a similar view when they stated that:

The rule maps poorly on to electronic documents, which often cannot be traced down to an ‘original’, particularly in a networked environment. In addition, the distinction between ‘original’ and ‘copy’ is not of much use, because there is usually in practice no discernible difference between the original and the copy. Thus, the original is not likely to be more clearly reliable than a copy.¹⁵⁶

There is however the opposite view that the electronic document stored on the computer is the original while all printouts by machines are copies and a proof of what was previously stored in the record of the computer.¹⁵⁷ Much as it is appreciated that it is difficult to neatly situate electronic records within the confines of the best evidence and authentication rules, and indeed all other paper-based evidentiary rules, the argument that electronic records have no originals is conceptually deficient. If an electronic record does not have an original, it cannot have copies. The concept of a “copy” by its very nature points to the existence of an original. Thus, without acknowledging some existing or defunct originals of electronic records, even if it is by some legal fictionalization, it might be technically difficult for parties to take full advantage of the statutory exceptions to

¹⁵³*Supra* note 131 at 98. See generally also *supra* note 37 at 24.

¹⁵⁴*Supra* note 131 at 98.

¹⁵⁵*Supra* note 37 at 24.

¹⁵⁶RJ Currie & S Coughlan, “Canada” in S Mason ed, *Electronic Evidence* (London, UK: Butterworths, 2012) 283 at 289.

¹⁵⁷K Gronfors, “The Paperless Transfer of Transport Information and Legal Functions” in CM. Schmitthoff & RM Goode ed, *International Sale of Goods: Some Legal Problems and Legal Solutions* (London, UK: CCLS, 1998) at 19-20.

hearsay rules with regard to electronic records. It is therefore a better view to say that the pieces of electronic information stored in magnetic impulses are the original copies of electronic records, and the fact of their unreadable nature before retrieval by a computer affords the necessary foundation for acceptance in evidence of their secondary copies in whatever form.¹⁵⁸ It is better that the courts continue to treat the matter as a question of fact dependent upon the peculiar circumstances of each case since there may be cases in which there might be a real and practical necessity to look at the original in the interest of justice, such as where the integrity of the data is genuinely in issue.¹⁵⁹ If, as rightly observed by Currie and Coughlan in the quotation above, a given copy of an electronic data may not be traced to its original, then, such situations should be treated as instances where the original has been lost or cannot be found. The good thing about the rule that requires original documents is that it allows secondary evidence of the original on the condition that the necessary foundations are laid.¹⁶⁰ Even where such foundations are not laid, the courts will still admit secondary evidence so long as the adverse or opposing party does not object to its admissibility and so long as such evidence is not among the categories that are legally inadmissible.¹⁶¹

3.4.2 Who is the Maker of an Electronic Document and Who Can Be Called as a Witness for the Purpose of Evidence in Dispute Settlement?

At common law, and this has also been statutorily endorsed, documents are, for purposes of authentication, conceived of as having makers who are “persons” in law.¹⁶² It is further required that, for purposes of admissibility, the maker of a document needs to be called as a witness except where the case fits into some recognized exceptions.¹⁶³ With advances in technology, electronic records produced by systems independently of human participation

¹⁵⁸*Supra* note 37 at 24-5.

¹⁵⁹See generally, S Mason, C Freedman & S Patel, “England & Wales” in S Mason ed, *Electronic Evidence* (London, UK: Butterworths, 2012) 327 at 341.

¹⁶⁰*Gazi Construction co Ltd v. Bill Construction Nig Ltd* (2011) LPELR-19740(CA) at 17-8 paras E-C.

¹⁶¹*Ibid* at 18 paras C-D; *IBWA v. Imano Nig Ltd* (1988) 3 NWLR (Pt.85) 633 at 651.

¹⁶²See generally EA, *supra* note, 151 s 83.

¹⁶³See for example *ibid*.

have become a reality.¹⁶⁴ Such possibilities include “mechanical calculations beyond manual computation, or where the device gathers information on its own initiative by monitoring and recording conversations.”¹⁶⁵

Yet, electronic systems or programs have not achieved personhood in law.¹⁶⁶ In such circumstances, it might be necessary to answer the pertinent questions: who is the maker of the electronic record/document and who can be called as a witness in relation to it? These are some of the challenges confronting electronic records or documents when offered as proof of facts at issue in disputes. It will be interesting to investigate how the law has sought to get around this challenge.

3.5 International Legal Responses to the Admissibility and Evidential Value of Electronic Communications

The MLEC forbids discrimination against electronic records or communications on the sole ground of their electronic nature.¹⁶⁷ It further grants the status of originality to electronic records or communications so long as they are accessible and have remained complete and unaltered, apart from the addition of any endorsements and any changes which arise in the normal course of communication, storage and display.¹⁶⁸

Part two of MLEC is made up of Articles 16 and 17 and applies specifically to carriage of goods including contract of carriage of goods by sea.¹⁶⁹ Any law or custom or practice that requires the use of paper document to effect any transactions relating to the carriage of goods is satisfied where such transactions are effected by electronic communications.¹⁷⁰ To achieve this functional alternative status, the right or obligation

¹⁶⁴See generally *supra* note 131 at 109.

¹⁶⁵*Ibid.*

¹⁶⁶See generally, U Pagallo, *The Laws of Robots: Crimes, Contracts, and Torts* (New York: Springer, 2013) and SN Hamilton, *Impersonations: Troubling the Person in Law and Culture* (Toronto, ON: University of Toronto Press, 2009).

¹⁶⁷MLEC, *supra* note 22, art 5.

¹⁶⁸*Ibid.*, art 8.

¹⁶⁹*Ibid.*, art 16.

¹⁷⁰*Ibid.*, art 17(1) & (2).

concerned must have been acquired by only one person and no other, and the method used in effecting the transaction by electronic communications are unique and reliable.¹⁷¹ Except where electronic communications employed in granting, acquiring, renouncing, surrendering, transferring or negotiating rights in goods or in acquiring or transferring rights and obligations under the contract of carriage have been expressly terminated, no paper document employed in the same regard is valid.¹⁷² A rule of law that would otherwise have been compulsorily applicable to a contract of carriage does not become inapplicable merely because the contract of carriage has been alternatively effected in or by electronic communications.¹⁷³

By the above provisions, electronic records or communications (where the MLEC has been adopted either by agreement of parties or by incorporation into national law) automatically satisfy the best evidence rule that requires the production of the original document or the best copy available. However, although proof that an electronic record/communication has remained complete and unaltered, apart from necessary endorsement and changes, constitutes as much an inherent part of its authentication as it is a fundamental condition of its originality, MLEC does not contain a complete guide on how electronic records/communications will satisfy the evidential rule or requirement of authentication. It might be necessary then for parties to turn to local laws for guidance on this score. It does not say whether or not the maker of an electronic record/communication will need to be called as a witness or how the integrity of electronic record/communication will be established. It might be necessary to turn to the relevant local statute or common law to determine such an issue. It does however clear any difficulties that may arise with respect to the distinction between where the maker is a person in law and where the electronic records/communications are autonomously generated by an information system as defined in Article 2 by presuming them to be those of the originator where they are a result of some programming done by or on his or her behalf.¹⁷⁴ It is noteworthy however,

¹⁷¹*Ibid*, art 17(3).

¹⁷²*Ibid*, art 17(5).

¹⁷³*Ibid*, art 17(6).

¹⁷⁴*Ibid*, art 13(2)(b).

that, the presumption only exists as between the originator and the addressee of electronic records/communications.¹⁷⁵ While this restriction will not preclude their successors in title from taking advantage of the presumption, it might prove to be a clog in the wheel of progress of criminal prosecutions since there may be no basis for the State or Crown to take advantage of the presumption, being ordinarily neither the originator or addressee nor their successor in title.¹⁷⁶

However, if and where such electronic communication is admitted in evidence, its probative weight will be determined by a consideration of the reliability and integrity of the manner in which the data record was created, stored or communicated, as well as the reliability and integrity of the manner in which the information was authenticated.¹⁷⁷

The CMI Rules only preclude parties and subsequent users of the CMI Procedure from raising any issue in relation to transactions concluded under the CMI Rules regime on the sole ground that such transactions were not in writing or were not signed.¹⁷⁸ There are no provisions in the CMI Rules dealing with issues relating to the requirement of original document, authentication and calling makers of electronic records/communications as witnesses in dispute resolution. To determine these issues and many other related ones, the judge or arbitrator concerned may have to seek the assistance of the common law or specific provisions of local statutes.

Under the Hague and Hague-Visby Rules, “document”, “writing” and “signatures” are so much conceived in their traditional sense that they do not by themselves envisage the use of electronic communications in contract formation,¹⁷⁹ much less containing guides on questions regarding requirement of original document, authentication and calling of makers of electronic records/communications as witnesses in dispute resolutions.

¹⁷⁵*Ibid*, art 13(2)(b).

¹⁷⁶*Ibid*, art 13(2)(b).

¹⁷⁷*Ibid*, art 9(2).

¹⁷⁸CMI Rules, *supra* note 34, r 11.

¹⁷⁹See generally WHV Boom, “Certain Legal Aspects of Electronic Bills of Lading” (1997) 32(1) European Transport Law 9 at 14-5.

Although the Hamburg Rules, inclusively define “writing” as including *inter alia*, telegram and telex,¹⁸⁰ and recognize electronic signatures, they have not sufficiently accommodated electronic records/communications and are subject to the national law on this matter. It is no surprise therefore that parties or judges or tribunals will still have to look to the common law or other relevant legal instruments, particularly local statutes, for assistance in resolving issues regarding requirement of original document, authentication and calling as witnesses, makers of electronic records/communications.

As an alternative to the paper-based transport document, the Rotterdam Rules provide for the issuance of an electronic transport record, defined as information in one or more messages issued by electronic communication, including information logically associated with such electronic transport record as to be considered part of it.¹⁸¹ Under the Rotterdam Rules, it is clearly provided that the issuance, possession or transfer of an electronic transport record has the same effect as the issuance, possession or transfer of a paper-based transport document.¹⁸² The Rotterdam Rules contain no provisions on what constitutes an original of an electronic transport document, whether and who can be called as a witness in relation to it, and how to establish its integrity, among other issues or uncertainties.¹⁸³ Determining these issues and other related questions may necessitate an appeal to the common law or other relevant legal instruments particularly local statutes, for assistance or guide.¹⁸⁴

¹⁸⁰Hamburg Rules, *supra* note 55, art 1(8).

¹⁸¹Rotterdam Rules, *supra* note 66, arts 8(a) & 1(18).

¹⁸²*Ibid*, art 8.

¹⁸³Note however that although electronic contracts or communications are, by the enabling provisions of Articles 4, 8(1), 9 and 12 of the United Nations, *Convention on the Use of Electronic Communications in International Contracts*, GA Res 60/21, GAOR 60th sess, 53rd plen mtg, UN Doc A/Res/60/21 (2005) (UNCUEC) recognised and enforceable, the fact of their recognition alone does not offer any assistance as to what is an original of an electronic transport document under the convention or on the questions of authentication and calling as witnesses makers of electronic records/communications. At any rate, by the provision of its Article 2(2), this convention has no application to contracts of carriage of goods by sea effected by or in a bill of lading.

¹⁸⁴See generally VV Palmer, MY Mattar & A Koppel, *Mixed Legal Systems, East and West (Juris Diversitas)* (Farnham, UK: Ashgate Publishing Company, 2015) at 87.

3.6 National Legal Responses to the Admissibility and Evidential Value of Electronic Communications

3.6.1 United Kingdom

The rule against hearsay in civil proceedings in the UK under the *Civil Evidence Act, 1995*¹⁸⁵ is no longer relevant except so far as questions of weight of such evidence are concerned.¹⁸⁶ Further, the questions of weight and the consequences of the rules on original documents and opinion evidence now have diminished importance in the UK.¹⁸⁷ Even prior to the *Civil Evidence Act 1995*, the *Civil Evidence Act 1968* and the *Police and Criminal Evidence Act 1984* had allowed the admission of computer-generated evidence in civil and criminal proceedings respectively provided that the party who proposed to lead such evidence established its authenticity and reliability and gave the opposing party notice of intention to lead the evidence.¹⁸⁸ In *Derby & Co v Weldon* (No. 9),¹⁸⁹ Vinelott J. held that the database of a computer is a document for the purposes of the High Court rules governing discovery of documents, so long as it contained information capable of being retrieved and converted into readable form and whether stored in the computer or recorded in a backup file.

The determination of the admissibility of electronic documents/records under the UK law may likely begin with an analysis of whether or not such documents/records constitute real or hearsay evidence.¹⁹⁰ This is because, as the Court of Appeal held in *R v Wood*,¹⁹¹ evidence generated directly by a computer, which in this case was being used as a calculator, is a direct evidence. Also, in the *Statute of Liberty*,¹⁹² a collision occurred between two vessels on the Thames estuary. The estuary was monitored by radar and a

¹⁸⁵*Civil Evidence Act 1995* (UK), c 38, s 1.

¹⁸⁶*Supra* note 134 at 80.

¹⁸⁷*Supra* note 37 at 11.

¹⁸⁸See the *Civil Evidence Act 1968* (UK), c 64, s 5 & *Police and Criminal Evidence Act 1984* (UK), c 60, s 69 (PCEA) respectively.

¹⁸⁹(1991) 1 WLR 652, (1991) 2 All ER 901.

¹⁹⁰See generally *supra* 159 at 363-4.

¹⁹¹(1983) 76 Cr App Rep 23.

¹⁹²(1968) 2 All ER 195.

film of the traces of that radar was admitted into evidence as real evidence. On rejecting the argument that the film was hearsay, Simon P held that, the law must take note of the replacement of human efforts by mechanical means in our modern world. He then placed the film on par with direct oral evidence. In *Camden London Borough Council v Hobson*,¹⁹³ it was held that computer-generated evidence is real evidence if the statement originated in the computer. Such evidence would be admissible as the record of a mechanical operation in which there was no human input. But a statement originating from a human mind and subsequently processed by a computer would be hearsay and inadmissible. The Divisional Court, per Birch DJ further held in *Sophocleous v Ringer*¹⁹⁴ that Section 69 of the *Police and Criminal Evidence Act 1984*, which sets preconditions to admissibility of documentary hearsay, does not apply where a computer which had been used to calculate results produced direct evidence.

Although, the question of authenticity and reliability may affect only the weight to be assigned to the electronic documents/records, demonstrating the authenticity and reliability of such evidence is still a fundamental requirement of the extant evidence law in the UK.¹⁹⁵ A court/tribunal may reject such evidence on the ground that it is totally unauthentic and unreliable, pursuant to its power under Section 14(1) of the *Civil Evidence Act 1995* which provides that “Nothing in this Act affects the exclusion of evidence on grounds other than that it is hearsay.”

Under the Act it must be cumulatively demonstrated that, the document was prepared at a time during which the computer regularly stored or processed information; over the relevant period of time, information of this type was regularly supplied to the computer; the computer was operating properly, and the information contained in the statement was an accurate reproduction of that supplied to the computer.¹⁹⁶ Further, the

¹⁹³*The Independent*, January 28, 1992, 24 (Clerkenwell Magistrate's Court).

¹⁹⁴(1988) RTR 52.

¹⁹⁵*Civil Evidence Act 1995* (UK), c 38, s 4; *Civil Evidence Act 1968* (UK), c 64, s 5; PCEA, *supra* note 185, s 69.

¹⁹⁶*Civil Evidence Act 1968* (UK), c 64, s 5(2). See the PCEA, *supra* note 185, s 69 for a similar provision in relation to criminal proceedings.

person in charge of the operation of the computer at the material time must certify the reliability of such evidence or the matters in question to the best of his or her knowledge and belief by a certificate to that effect signed by him or her.¹⁹⁷ Unless, there is contrary evidence, such a certificate will be accepted as proof of the matters to which it relates.¹⁹⁸ It is however necessary to note that the law does not require absolute perfection in the operation of the computer before the electronic output will be accepted as reliable. Thus, in *Director of Public Prosecution v McKeown*,¹⁹⁹ the House of Lords admitted in evidence information provided by an intoximetre even though the computer clock was inaccurate since the inaccuracy did not affect the processing of the information supplied to the computer. It would seem that the ultimate goal of the requirements of reliability and authenticity of statements in electronic documents is to ensure that they are as much a true representation of the observations of the witness as they are an accurate record of those observations or representation.²⁰⁰

Reed had argued that, the preconditions set out in Section 5(2) of the *Civil Evidence Act 1968* and Section 69 of the *Police and Criminal Evidence Act 1984*, to admissibility of electronic evidence in criminal and civil proceedings respectively do not apply to direct computer evidence. According to him, this is because of judicial elevation of direct computer evidence to the status of oral testimony to which hearsay rules do not apply, coupled with the fact that “statement” under Sections 5(5) of the *Civil Evidence Act 1968* and the *Police and Criminal Evidence Act 1984* suggests hearsay statements.²⁰¹ The fact that “document” in Section 118(1) of the *Police and Criminal Evidence Act 1984* has the same meaning as “document” in part 1 of the *Civil Evidence Act 1968*²⁰² may seem to provide further justification for this view. This arguments are not tenable. Even oral

¹⁹⁷*Civil Evidence Act 1968* (UK), c 64, s 5(4); *supra* note 130 at 4.

¹⁹⁸*Supra* note 37 at 17.

¹⁹⁹(1997) NLOR No. 135.

²⁰⁰*Supra* note 130 at 4.

²⁰¹*Ibid* at 2.

²⁰²*Civil Evidence Act 1995*, c 33, Schedule 1, s 9(3).

testimonies are subjected to veracity tests. First, the witness swears to an oath to speak the whole truth, and he is thereafter grilled under cross-examination.

With respect to electronic documents which form part of the records of a business or public authority, there must be, in addition to the certification of a computer's performance and conditions under Section 5(4) of the *Civil Evidence Act 1968*, a certificate duly signed by an officer in charge of the business or public authority concerned to the effect that such electronic documents are part of their records.²⁰³

3.6.2 Canada

Appreciating that complete reform of the law was the only practical way to adequately respond to the pressures put upon traditional legal rules of evidence by the advances in information and communications technology, the Uniform Law Conference of Canada (ULCC), in 1998, adopted the *Uniform Electronic Evidence Act* (UEEA) as a model statute to modernise the traditional common law best evidence, hearsay and authentication rules in line with current technological realities.²⁰⁴ The Parliament of Canada for federal matters and all the jurisdictions of Canada except British Columbia, New Brunswick, Newfoundland and Labrador, and Quebec have adopted the UEEA in one form or another.²⁰⁵

Quebec and New Brunswick enacted distinctive provisions applicable only to civil proceedings since the *Canada Evidence Act* (CEA),²⁰⁶ which contains the UEEA's provisions in sections 31(1)–31(8) applies to criminal proceedings throughout the whole of Canada as a matter of superior legislative competence of the Federal Parliament of Canada over the Provincial Assemblies.²⁰⁷ Interestingly, even the *British Columbia*

²⁰³*Ibid*, s 9(1) & (2).

²⁰⁴Uniform Electronic Evidence Act 1998 (UEEA); *supra* note 131 at 98-102; *supra* note 156 at 288.

²⁰⁵*Supra* note 131 at 102-3.

²⁰⁶*Canada Evidence Act* R.S.C. 1985, c. C-5 (CEA).

²⁰⁷*Supra* note 131 at 102.

Evidence Act,²⁰⁸ so far as affects the requirements for proof for electronic records, was duly influenced by the UEEA.²⁰⁹

Since this thesis deals with the bill of lading, as an aspect of carriage of goods by sea which under the Constitution of Canada falls within the legislative competence of the Canadian Federal Parliament²¹⁰ and within the jurisdiction of the Federal Court of Canada by virtue of Section 22 of the *Federal Courts Act*,²¹¹ the analysis will be limited to the provisions of the CEA.²¹²

The CEA establishes an alternative conception of “best evidence” based solely on the integrity of the electronic documents system in or by which the electronic document is recorded or stored or on the evidential presumption of secure electronic signature and/or authentication.²¹³ This is a good development since it enhances the admissibility of electronic evidence by focusing only on the integrity of the circumstances of its processing, production and storage without disrupting the functionality of the “best evidence rule” which has served the litigating world well for a long time now.²¹⁴ Section 31(1) of the CEA provides for authentication of electronic documents. Authentication means establishing the integrity of the electronic documents in terms of content and source. It involves demonstrating that the information in the electronic document is what it purports to be and has remained unchanged and that the origin is just as claimed.²¹⁵ The burden of authenticating electronic documents under the CEA is on the person seeking its admission into evidence, and this is discharged by evidence capable of supporting a finding that the electronic document is what it purports to be.²¹⁶

²⁰⁸R.S.B.C. 1996, c.124.

²⁰⁹*Supra* note 131 at 102.

²¹⁰*Constitution Act* 1982, s 91.

²¹¹*Federal Courts Act* R.S.C. 1970 (2nd Supp.) c.10.

²¹²*Supra* note 156 at 283-4.

²¹³CEA, *supra* note 206, ss 31(2)(1) & 31(4); See generally also *supra* note 156 at 290.

²¹⁴See especially CEA, *supra* note 206, s 31(3)(b) & (c).

²¹⁵*Supra* note 130 at 5.

²¹⁶CEA, *supra* note 206, s 31(1).

The nature of proof required under Section 31(1) of CEA is oral testimony. This much is confirmed by the deliberate exclusion of authentication of electronic documents from the matters that can be proved by affidavit evidence under the regime of Section 31(6) of CEA. Duranti, Rogers & Sheppard wondered why the burden is merely that of leading evidence capable of supporting a finding²¹⁷ instead of on a balance of probabilities.²¹⁸ They also raised an issue about the use of “person” in a similar provision of the UEEA which they stated is ambiguous since it could mean either the litigant who introduces the electronic evidence or the witness who is called merely to authenticate it.²¹⁹

The burden of proving authenticity under the provision should be clarified as between where there is no challenge to the authenticity of the electronic document and where the opposing party contests its authenticity. Where the opposing party accepts the truth of the electronic document, whether expressly or by necessary implication, foundational evidence²²⁰ capable of supporting a finding will be good enough, otherwise the burden should be a balance of probabilities.

Duranti, Rogers & Sheppard would seem to be arguing that the ambiguity which they stated exists under the authentication provision of UEEA has been cured in the CEA by substituting “what the person claims it to be” with the phrase “that which it is purported to be.” I do not think that this is so. This is because the confusion is with the subject “person” and not the action words “claims it to be” or “purported to be.”

With respect to the ambiguous use of the term “person” in the provision, there are various ways by which clarity could be achieved. It is to be noted however, that, although most times, the two roles of a litigant and a witness are performed by two persons, there may be cases where a litigant performs both roles. In any event, the burden of proof of any fact or issue in litigation will always be on the litigant, and even where, practically, it is a witness that will shoulder that burden, he or she will be doing so for and on behalf of the

²¹⁷See also *supra* note 156 at 289.

²¹⁸*Supra* note 131 at 111.

²¹⁹*Ibid.*

²²⁰See generally R King & C Stanley, “Ensuring the Court Admissibility of Computer-Generated Records” (1985) 3:4 ACM Transactions on Office Information Systems 398 at 403.

litigant who has called him or her as a witness. Notwithstanding the forgoing, it does not harm to clarify the issue by substituting “person” with words such as “litigant” or “party to a dispute”.

The provision in Section 31(1) of the CEA allowing proof by affidavit, of printouts, integrity of electronic documents and standards, procedures, usages and practices concerning the manner of recording or production and storage of electronic documents does not adequately protect the interest of the party against whom an electronic document is introduced in judicial proceedings. This is because there is no corresponding right to file a counter-affidavit where the opposing party intends to contest the matters or depositions in the affidavit. The opposing party’s only recourse is cross-examination of the deponent of such an affidavit.²²¹ Such cross-examination will most likely be done by a lawyer who may not have sufficient grasp of the architectural complexities of modern computing systems. On the other hand, material conflicts in the affidavits might have enabled both parties to lead oral testimonies by information and communications technology experts.²²²

One of the most biting criticisms which Duranti, Rogers & Sheppard have against the UEEA, and by extension the CEA, is that they have paid little or no attention to the hearsay rule and business records exceptions as well as the common law distinction between records produced by systems with no human inputs and those compiled by humans within electronic systems.²²³ This is unlike what obtains in the UK as already discussed above. To deal adequately with the lacuna, the litigants and their lawyers and indeed the judge will need to appeal to some common law rule or statutory exceptions outside the provisions introduced or influenced by the UEEA.²²⁴ In *Saturley v CIBC World Markets Inc*,²²⁵ the distinction between records produced by systems with no human inputs and those compiled by humans within electronic systems took on the form of a distinction

²²¹CEA, *supra* note 206, s 31.6(2).

²²²*Chief Gabriel Ebak & Ors v Okey Ebey & Ors* (2013) LPELR – 21947 (CA) at 19-20; *Re Otuedon* (1995) 4 NWLR (Pt 392) 655.

²²³*Supra* note 131 at 104 & 108-9.

²²⁴*Ibid* at 109.

²²⁵(2012) NSSC 226.

between an “electronic record” and “electronic document”. The Nova Scotia Supreme Court agreed with the defendant that data automatically generated by software that registered investment trading transactions constituted “electronic records” under the *Evidence Act*, but was certainly not an “electronic document” having been generated without human intervention and thus was real evidence not subject to the presumption of reliability designed to satisfy the best evidence rule.²²⁶

Fortunately, Section 31(5) of CEA which provides that, “For the purpose of determining under any rule of law whether an electronic document is admissible, evidence may be presented in respect of any....” and the provisions of Section 31(7) of the same CEA provide the needed leeway for such external consultations. In expressing agreement with this view, Currie and Coughlan warned that:

It is worth emphasising that the Uniform Act Scheme is not a complete package for the admissibility of electronic documents. Rather, it confirms the application of the common law of authentication to electronic documents, and provides a means by which parties may satisfy the best evidence rule. The documents will still have to satisfy any other applicable rules of evidence in order to be admitted, such as exceptions to the hearsay rule.²²⁷

Further, Canadian courts have always from the earliest need, and even before the regime of UEEA and its statutory offspring, demonstrated a positive attitude to ensuring incremental development of the law of electronic commerce to accommodate advances in technology, so far as is consistent with their traditional role as umpires as well as the integrity of the judicial proceedings and processes.²²⁸

Thus, in *Kinsella v. Logan*,²²⁹ the court admitted printouts of credit reports under the common law exception to the hearsay rule. Although, the Court indicated that the records were not as reliable as primary financial records, it still accepted the credit file as

²²⁶*Supra* note 156 at 290-1; *Saturley v CIBC World Markets Inc* (2012) NSSC 226.

²²⁷See generally also *supra* note 156 at 290.

²²⁸*Supra* note 131 at 100-1; *Watkins v Olafson*, (1989) 2 SCR 750.

²²⁹(1995) 38 CPC (3d) 128.

prima facie proof of the facts contained therein. The Supreme Court of Canada also held in *R v Khan*²³⁰ that even a statement which is hearsay should be received so long as there are guarantees of necessity and reliability, subject to such safeguards as the Judge may deem necessary and subject always to considerations affecting the weight to be accorded such evidence.

²³⁰(1990) 2 RCS 531 at 548.

3.6.3 Nigeria

Admissibility of evidence in Nigeria is now governed by the Nigerian *Evidence Act*, 2011 (EA),²³¹ which has made great inroads into many of the traditional common law rules of evidence that had created uncertainties about the admissibility of electronic evidence in the not too distant past. But even prior to the enactment of the EA, the Nigerian judiciary had exhibited a willingness to extend conventional common law rules of evidence to accommodate the advances in the information and communications technology. Thus, as far back as 1969, the Supreme Court of Nigeria, in *Esso West Afric Inc v T Oyagbola* held that “the law cannot be and is not ignorant of modern business methods and must not shut its eyes to the mysteries of the computer.”²³²

The above position was restated in *Yesufu v African Continental Bank Ltd*²³³ and *Trade Bank Plc v Chami*²³⁴ by the Supreme Court of Nigeria itself and the Nigerian Court of Appeal respectively.²³⁵ In *Anyaebosei v RT Brisco Nigeria Ltd*,²³⁶ the Supreme Court of Nigeria specifically held that computer-generated evidence is admissible.

In spite of the favourable decisions above, there still remained uncertainties about the admissibility of computer-generated evidence in Nigeria.²³⁷ In *FRN v Fani-Kayode*²³⁸ the computer printout of a statement of account of the respondent which was tendered as an entry in a banker’s book of accounts was rejected by the Federal High Court of Nigeria. The lower court’s decision was however reversed by the Nigerian Court of Appeal which held that the computer-generated statement of account substantially complied with the provisions of Section 97(2)(e) of the old *Evidence Act* (now Section 90(e) of the *Evidence*

²³¹EA, *supra* note 151.

²³²(1969) 1 NMLR 194 at 198.

²³³(1976) 1 All NLR 328.

²³⁴(2003) 13 NWLR (Pt 836) 158 at 216.

²³⁵T Nwamara, *Electronic Evidence in Nigeria – Disclosure, Discovery and Admissibility* (Aba, Nigeria: Law and Educational Publishers Limited, 2012) at 27.

²³⁶(1987) 3 NWLR (Pt 59) 84.

²³⁷*Supra* note 235 at 27-9.

²³⁸(2010) All FWLR (Pt 534) 181.

Act, 2011) and was admissible since PW2 testified on oath that it was a document from the custody of the bank which was certified as a true representation of the statement of account kept by that bank.

The uncertainties over the admissibility of electronic evidence in Nigeria have been laid to rest by the introduction of Section 84 of the EA. Subsection 1 of this section validates the admission of electronic evidence so long as the document containing the statement was produced by the computer during a period over which the computer was used regularly to store or process information for the purposes of any activities regularly carried on over that period. It must also be shown that over that period, there was regularly supplied to the computer in the ordinary course of those activities information of the kind contained in the statement or of the kind from which the information so contained is derived. Further, it is also necessary that throughout the material part of that period, the computer was operating properly or, if not, its malfunctioning or inactivity during that part of that period was not such as to affect the production of the document or the accuracy of its contents, and the information contained in the statement reproduces or is derived from information supplied to the computer in the ordinary course of those activities.

It is however a condition precedent to the admissibility of such an electronic document to produce a certificate signed by a person responsible for the computer at the material time, identifying the document containing the statement and describing the manner in which it was produced and the particulars of any device involved in the production as may be appropriate for the purpose of showing that the document was produced by a computer and certifying compliance with the conditions laid down in section 84(1).²³⁹

²³⁹EA, *supra* note 151, s 84(4); *Dr Umoru Kubor v Hon Seriaki Henri Dickson* (2013) 4 NWLR (Pt 1345) SC 534.

Like the CEA, the Nigerian *Evidence Act*, 2011 does not deal with the common law distinction between records produced by systems with no human inputs and those compiled by humans within electronic systems.²⁴⁰

It is noteworthy also that satisfying the requirements for admissibility set down in Section 84 of the EA does not preclude the court from rejecting an electronic document for failure to comply with other mandatory requirements of the law.²⁴¹

3.7 Conclusion

Apart from the need to satisfy relevant substantive legal rules that govern the contract of carriage of goods by sea, an electronic bill of lading will also need to comply with the formal and procedural requirements including those of writing and signature. This is the central role of electronic transaction law. Whether there is a contract between parties and at what point it was formed as well as the admissibility and evidential weight of the electronic document or bill of lading are equally common obstacles to electronic documentation. The extent to which any jurisdiction tackles these issues is a measure of its electronic commerce regime. In this respect, as earlier indicated, the UK and Canada are ahead of Nigeria.

²⁴⁰See the provisions of EA, *supra* note 151, s 84(5).

²⁴¹*Dr Umoru Kubor v Hon Seriaki Henri Dickson* (2013) 4 NWLR (Pt 1345) SC 534.

Chapter 4: Technical Efforts at Resolving the Challenges of Electronic Bills of Lading

As discussed earlier, there are a number of challenges that have affected a successful substitution of the paper bill of lading with its electronic counterpart. While some of these challenges are peculiar to electronic bills of lading, others are general and affect every electronic document. The problem of negotiability or of serving as a document of title is peculiar to the electronic bill of lading. On the other hand, issues relating to offer and acceptance, writing and signature requirements as well as the admissibility and evidential value are of a general nature and affect every other contractual electronic communication or document. There has been a number of efforts by stakeholders in the maritime industry to address these challenges including the use of legislation and judicial interpretation.

4.1 The Value of Technical Measures as an Integral Part of Legal Responses

Other than legislative and/or juridical intervention, building an effective infrastructure for electronic commerce will require collaboration among many professions including record managers, information technology professions and digital forensics experts.¹ It is from this understanding that King and Stanley have admonished that, information and communication experts should as much be concerned with the social and legal aspects of the use of computers in the office environment as with the hardware and software.² Consequently, a number of technical measures have been adopted by industry practitioners to eliminate or at least minimize the challenges of electronic commerce particularly electronic replication of the traditional functions of the paper bill of lading. The following sections outline some of the key measures.

¹L Duranti, C Rogers & A Sheppard, "Electronic Records and the Law of Evidence in Canada: The *Uniform Electronic Evidence Act* Twelve Years Later" (2010) 70 The Journal of the Association of Canadian Archivists 95 at 99.

²R King & C Stanley, "Ensuring the Court Admissibility of Computer-Generated Records" (1985) 3:4 ACM Transactions on Office Information Systems 398 at 398.

4.2 Private and Public Key Encryptions and Digital Signature

Cryptography is a process where readable information - called the plaintext - is encrypted using a code called the cipher key to produce an encrypted copy of the information - known as the ciphertext - which can only be decrypted and restored to the original plaintext through the use of the cipher key. A cipher key is similar to a password but is usually much longer and therefore cannot be guessed.³ Encryption ensures that a message is kept secret between the sender and the recipient and unintelligible to outsiders.⁴ There are two types of cryptography, namely, the private-key cryptography and the public-key cryptography. The public-key cryptography has been in more common use since the 1970s.⁵ Private-key and public-key encryptions are otherwise called symmetric and asymmetric cryptography respectively.⁶ The public and private keys are a pair of uniquely related cryptographic keys.⁷ Public-key cryptography is employed when electronic messages are transmitted through an open network such as the internet where there are a possibility and fears of interception of such messages by third parties.⁸ While the public-key is accessible to the whole public, the private-key is a confidential asset of its owner and cannot even be accessed by the other party to the transmitted message.⁹ Unlike the symmetric cryptography which uses the same key to perform the two opposite functions of encryption and decryption of electronic messages, asymmetric cryptography involves a pair of mathematically related but different keys that have inverse functionality with respect to encryption and decryption of electronic information.¹⁰ In other words, whatever is encrypted with a public-key can only be decrypted with a corresponding private-key and

³AC Vieira, *Electronic Bills of Lading* (LL.M Thesis, University of Nottingham School of Law, 1999) [unpublished] at 21.

⁴C Charles, *E-Commerce Law for Business Managers* (Canterbury, UK: Financial World Publishing, 2002) at 9.

⁵*Ibid.*

⁶*Ibid.*

⁷*Ibid.*

⁸*Ibid.*

⁹*Ibid.*

¹⁰*Ibid.*

vice versa. Encryption guarantees the confidentiality of the electronic information and the authenticity of its source.¹¹ While the CMI Rules procedure uses private-keys to effect the issuance and negotiation of electronic bill of lading,¹² digital signatures are based on asymmetric cryptography which involves public-key infrastructure (PKI) in which there is an inverse functionality of encryption and decryption with the public key and private key respectively.¹³ The value of the PKI is so much appreciated that it has even been adopted in other areas of human endeavours other than in maritime transport. For example, in order to improve security in inspection systems and to prevent identity and passport fraud and/or terrorism, the PKI approach is now used by the International Civil Aviation Organization (ICAO) for passports and travel documents.¹⁴

CMI Rules and procedure have been discussed above. A digital signature on the other hand, involves a mechanism in which data are created and signed in digital form.¹⁵ It allows for greater security and authentication of electronic communications.¹⁶ A digital signature is created using an identity (ID) certificate issued by a certification authority (CA) whose main role is to guarantee the source and integrity of signed electronic communications using a private key issued to the person concerned.¹⁷ Digital signatures involve the creation and use of a mathematical value otherwise called “hash value” which practically functions as the fingerprint of the message that creates an error message if the data changes.¹⁸ The signer then encrypts the hash value of the data with his or her private key and transmits it over the internet to the recipient who creates the hash value and the

¹¹*Ibid.*

¹²AN Yiannopoulos, “General Report” in AN Yiannopoulos ed, *Ocean Bills of Lading: Traditional Forms, Substitutes, and EDI Systems* (The Hague: Kluwer Law International, 1995) at 28.

¹³*Supra* note 4.

¹⁴See generally VKN Kumar & B Srinivasan, “Design and Implementation of E-Passport Scheme Using Cryptographic Algorithm Along with Multimodal Biometrics Technology” (2011) 1:6 International Journal of Advanced Information Technology 33 at 36-8.

¹⁵*Supra* note 4.

¹⁶M Goldby, *Electronic Documents in Maritime Trade: Law and Practice* (Oxford, UK: Oxford University Press, 2013) at 30.

¹⁷*Ibid* at 31.

¹⁸*Supra* note 4.

digital signature with the sender's public key and compares the hash value he or she creates with that added to the data by the sender to determine and/or confirm the integrity of the data message.¹⁹ An identical result is a confirmation that the data message has not been intercepted by a third party since its creation.²⁰

4.3 The Registry System

It has been observed and rightly so, that, in order to successfully replicate the third function of serving as a document of title in an electronic environment, the adopted electronic alternative method, must possess the capacity for determining who the holder of the electronic bill is in such a manner as to guarantee that a data message already used in transferring rights or obligations cannot subsequently be used inconsistently with such rights or obligations already transferred.²¹ This is what has been conceptualised as “a guarantee of singularity” under Article 17(3) of the MLEC or the notion of “exclusive control of electronic transport records” under the Rotterdam Rules.²² So far, the document-of-title function of the paper bill of lading, with sufficient “guarantee of singularity” or “exclusive control of electronic transport records,” has only been successfully replicated in the electronic environment by the registry system.²³ This is a system by which a record is made at each issuance or transfer in a register of the name of the person to whom the electronic bill of lading is issued or transferred, indicating that person as the holder of the bill.²⁴

Although, there are two other main models of registry system namely, state-operated or supervised registries and private registries of the issuers of the registered rights, the most common are the central registries the services of which are made only

¹⁹*Ibid.*

²⁰*Ibid.*

²¹M Goldby, “Electronic Bills of Lading and Central Registries: What is Holding Back Progress?” (2008) 17:2 Information & Communications Technology Law 125 at 126.

²²*Ibid* at 125-6.

²³*Ibid* at 126.

²⁴*Ibid.*

available to a closed group of members concerned.²⁵ As mentioned earlier, the SeaDocs²⁶ and the Bolero Bills of Lading²⁷ are examples of some of the efforts operated on the central registry model. The Korea Trade Net (KTNET) is also a good example of state-operated or supervised registry model.²⁸

4.3.1 *SeaDocs*

Seaborne Trade Documentation System (SeaDocs),²⁹ (established in) 1986, was the first serious effort to dematerialise an electronic bill of lading through the central registry system.³⁰ The SeaDocs project was managed by a London based SeaDocs Registry Ltd on the joint initiative of Chase Manhattan Bank and the International Association of Independent Tanker Owners (INTERTANKO).³¹ The SeaDocs system was created as a bridge between the conventional paper documentation and a fully electronic system as the bank communicated with users through telex upon receiving the original paper bill of lading.³² Under the SeaDocs system, the carrier would issue a paper bill of lading which SeaDocs Ltd held as a mutual agent of all parties and as a registry of the bill of lading negotiations.³³ SeaDocs had authority to negotiate the bill of lading while the goods were still in transit and to deliver the original traditional paper bill of lading to the ultimate consignee.³⁴ Upon receiving the original paper from the shipper, an electronic test code or key code would be provided to the shipper who was required to notify SeaDocs electronically of its intention to negotiate the bill and to provide the buyer/endorsee with

²⁵*Ibid.* See also *supra* note 16 at 294.

²⁶See RP Merges & GH Reynolds, "Toward a Computerized System for Negotiating Ocean Bills of Lading" (1986) 6:23 Journal of Law and Commerce 23 at 36.

²⁷See *supra* note 21.

²⁸See generally *supra* note 16 at 294.

²⁹A Delmedico, "EDI Bills of Lading: Beyond Negotiability" (2003) 1(1) Hertfordshire Law Journal 95 at 95.

³⁰M Dubovec, "The Problems and Possibilities for Using Electronic Bills of Lading as Collateral" (2006) 23:2 Arizona Journal of International & Comparative Law 437 at 449; *supra* note 12 at 22.

³¹*Supra* note 29 at 96.

³²*Supra* note 30 at 449.

³³*Supra* note 12 at 22-3.

³⁴*Ibid* at 23.

a portion of the key code.³⁵ SeaDocs would ensure the accuracy of the information received and then record the buyer/endorsee in the registry as the ‘legal owner’ of the cargo.³⁶ The buyer/endorsee, would then be issued with an electronic bill of lading that would enable him to take delivery at the port of discharge.³⁷

Although, the SeaDocs system was valid under the then existing legal regimes with no operational difficulties or high registration fees, it did not survive due to its failure to attract sufficient number of trading partners and banks.³⁸ The SeaDocs failed because: (1) commodity traders were unwilling to expose themselves to inspections by tax authorities and other competitors by recording their transactions in the SeaDocs’ central registry; (2) the ultimate buyers of the cargo were not comfortable with acquiring bills of lading from an entity designed to serve intermediaries and speculators; (3) banks were uncomfortable with the exclusive control of and access to the registry by one of their competitors; (4) the uncertainty of liability of participants and the resultant huge registry operational insurance; and finally, (5) the system could not achieve true negotiability as every instance of change in ownership required communication both to the carrier and to the endorsee.³⁹

The failure of the SeaDocs system demonstrates that a monopoly may not be viable in relation to a closed system of registration. A registry must, in addition to being accessible to any interested party, possess facilities that will enable prospective buyers and lenders to readily determine if and what encumbrances may attach to an electronic bill of lading.⁴⁰ Dubovec is of the view that “A consortium of banks or an independent operator, such as the Society for Worldwide Interbank Financial Telecommunication (SWIFT), which is already in use by banks, might find more supporters among the traders.”⁴¹

³⁵*Ibid*; *supra* note 29 at 96.

³⁶*Supra* note 29 at 96.

³⁷*Ibid*.

³⁸*Supra* note 12 at 23.

³⁹*Ibid*; *supra* note 29 at 96-7; *supra* note 30 at 450.

⁴⁰*Supra* note 30 at 450.

⁴¹*Ibid*.

However, the project demonstrated that there could be dematerialization of negotiable bills of lading through a central registry⁴² and laid the foundation for subsequent and more successful experiments and/or endeavours such as the Bills of Lading Electronic Registry Organization (Bolero) Project.

4.3.2 Bolero Project

The Bolero Project, with backing from the European Commission, was created in 1998⁴³ as an initiative of the International Chamber of Commerce (ICC) and is jointly owned by the Through Transport Club (TTC) and the Society for Worldwide Inter Bank Financial Telecommunications (SWIFT).⁴⁴ The Bolero project represents the first success story of electronic trade documentation, and was created as an answer to the failure of SeaDocs and CMI Rules to achieve their aim of successful electronic documentation.⁴⁵

The Bolero Project is comprised of Bolero International Ltd (BIL) and Bolero Association Ltd (BAL).⁴⁶ While the Bolero International Ltd manages the technological components of the Bolero Project such as the messaging system and the transaction centre for electronic bills of lading, the Bolero Association Ltd is made up of all users of the Bolero Project such as exporters, importers, shipping companies, freight forwarders and banks.⁴⁷ Each user is required to sign an Operational Service Agreement with BIL and Association Service Agreement with BAL. The users' contract with BAL is governed by the Bolero Rule Book, and each user of the Bolero Project must accept the terms of the Bolero Rule Book⁴⁸ under which the users accept the validity of electronic transactions

⁴²*Supra* note 29 at 97.

⁴³ET Laryea, *Paperless Trade: Opportunities, Challenges and Solutions* (The Hague: Kluwer Law International, 2003) at 83.

⁴⁴*Supra* note 29 at 98.

⁴⁵*Supra* note 43; *supra* note 29 at 98.

⁴⁶AG Hamid, "The Legal Implications of Electronic Bills of Lading: How Imminent is the Demise of Paper Documents?" (2004) 33:3 The Journal of the Malaysian Bar 1 at 12.

⁴⁷*Ibid.*

⁴⁸*Ibid.*

and documents effected on Bolero.⁴⁹ The system is managed by a trusted third party (TTP) as an arbitrator.⁵⁰ The system is governed by two registries namely, the Core Messaging Platform (BCMP) where users communicate electronically and the Title Registry (BTR) that keeps records of all Bolero bill of lading holders and effected transfers of ownership.⁵¹

The Bolero System has successfully achieved negotiability of electronic bills of lading through the common law concepts of attornment and novation.⁵² While novation involves termination of the old contract between the carrier and the previous holder, and formation of a new one on the same terms between the carrier and the new holder, attornment is an undertaking by the carrier as the bailee of the goods to deliver the goods to the new “holder”, thus giving the new holder constructive possession of the goods.⁵³ The transfer of the contract of carriage and the rights and liabilities under it is therefore by the means of novation and attornment whereby Bolero acts as the agent of the carrier who, as a continuing party to the new contract acknowledges the constructive possessory right of the new holder over the goods.⁵⁴

Although Rule 3.7 of the Bolero Rule Book allows reversion to a paper bill of lading, it provides a successful replication of all the functions of a traditional paper bill of lading particularly the document-of-title function and will gain greater acceptance within the business community as trust in electronic transactions expands.⁵⁵ Subject to mandatory international rules, the law applicable to contract effected by Bolero bill of lading is UK law and UK courts have exclusive jurisdiction over issues of non-compliance with the

⁴⁹*Supra* note 29 at 98.

⁵⁰*Ibid.*

⁵¹*Ibid.*

⁵²M Goldby, “Legislating to facilitate the use of electronic transferable records: A case study - Reforming the law to facilitate the use of electronic bills of lading in the United Kingdom” (Paper prepared for the UNCITRAL Colloquium on Electronic Commerce held in New York, 14 -16 February 2011) at 4-5.

⁵³*Ibid.*

⁵⁴*Ibid.*

⁵⁵*Supra* note 16 at 299.

Bolero Rule Book.⁵⁶ Where the disputes relate to any other issue other non-compliance with Bolero Rule Book, the jurisdiction is non-exclusive.⁵⁷ As regards choice of law, there is nothing in the Bolero Rule Book that prevents a dual system of laws so as to realise the contractual intention of the parties concerned.⁵⁸

4.3.3 *ESS-Databridge*

ESS-Databridge is a project established in 2003 by Electronic Shipping Solution Databridge Exchange Limited (ESS) with the aim of dematerialization of traditional transport documents.⁵⁹ The ESS Databridge system which was piloted from 2005 came alive in January of 2010.⁶⁰

The ESS-Databridge system operates under the legal framework of ESS-Databridge Services and Users Agreement (DSUA) which binds all users of the platform.⁶¹ One of the range of services offered to members of ESS-Databridge is CargoDocs by which electronic bills of lading could be issued and transferred.⁶² A major difference between the Bolero system and ESS-Databridge is that, unlike the Bolero system, it does not make use of title registry.⁶³ However, like the Bolero system, its services are only open to its members who are bound together by the DSUA,⁶⁴ and negotiability of electronic bill of lading under it is similarly achieved by novation and assignment or attornment.⁶⁵ DSUA is governed by UK law but where the contract of carriage is governed by US law, transfer

⁵⁶W Ma, "Lading Without Bills – How Good is the Bolero Bill of Lading in Australia?" (2000) 12:2 Bond Law Review 206 at 213-4.

⁵⁷*Ibid* at 214.

⁵⁸*Ibid* at 213.

⁵⁹*Supra* note 16 at 300; M Marusic, *A Gateway to Electronic Transport Documentation in International Trade: The Rotterdam Rules in Perspective* (LL.M Thesis, Lund University Faculty of Law, 2012) [unpublished] at 50.

⁶⁰*Supra* note 16 at 300.

⁶¹*Ibid* at 120.

⁶²*Ibid*.

⁶³Marusic, *supra* note 59.

⁶⁴*Supra* note 16 at 300.

⁶⁵Marusic, *supra* note 59.

of title to the goods under DSUA will be governed by the law of the State of New York, including the New York Uniform Commercial Code (UCC) and the Uniform Electronic Transactions Act 1999 (UETA).⁶⁶

There are many options for dealing with electronic bills of lading under the ESS-Databridge system including “sign”, “issue”, “amend” and “endorse”.⁶⁷ Exclusive control is achieved by limiting access to the relevant electronic record to only one person at a time.⁶⁸ Thus, once the electronic bill of lading or document is endorsed, except the endorsee returns it, the endorser loses control over the original and retains access only to a copy thereof expressly so marked for records.⁶⁹ Other accompanying electronic documents may be attached to the endorsement and sent over to the endorsee.⁷⁰ The ESS-Databridge electronic bill of lading was wonderfully designed to replicate the template of the traditional paper bill of lading on the computer screen which increases familiarity and acceptance of the electronic documentation of the CargoDocs service.⁷¹

The ESS-Databridge model is a great improvement on the earlier similar efforts in many respects. The electronic bill of lading under it can be converted to paper bill of lading for purposes of customs if need be. It incorporates eUCP and has a clear regime of liability and responsibility for insurance for eRisks, eFailure and eCrimes.⁷²

ESS’s customer base, which includes important trading companies, banks, carriers, freight forwarders, surveyors, ships’ agents etc grows at an average rate of twenty percent a month.⁷³ A good number of the users of the ESS-Databridge electronic bills of lading are in the emerging and developing countries, particularly in Latin America. The

⁶⁶*Supra* note 16 at 120.

⁶⁷*Ibid* at 302.

⁶⁸*Supra* note 52 at 6.

⁶⁹*Supra* note 16 at 302.

⁷⁰Marusic *supra* note 59.

⁷¹*Ibid* at 51; *supra* note 16 at 302.

⁷²Marusic, *supra* note 59 at 51.

⁷³*Supra* note 16 at 300.

implication of this is that Nigeria can also as a developing country access the services of the CargoDocs if the enabling environment is put in place.⁷⁴

4.3.4 Korea Trade Net (KNET)

KNET is a state-supervised central registry established by the Federal Republic of Korea pursuant to *the Presidential Decree on the Implementation of the Electronic Bill of Lading Provision of the Commercial Act*, 2008 (Presidential Decree)⁷⁵ which implemented enabling provisions of Article 862(5) of the *Commercial Act*, 2001.⁷⁶ The registry is operated by KNET under the supervision of the Korean Ministry of Justice.⁷⁷

KNET creates an electronic bill of lading which consists of two records which are daily identified and linked so as to operate in unison.⁷⁸ While the first record which is stored in the registry identifies the holder of the electronic bill of lading, the second one constitutes the contents of the bill of lading and is stored in the uTrade Document Repository.⁷⁹ It is the allocation of unique identification numbers that guarantees singularity of the electronic record or bill of lading.⁸⁰ The right of control in favour of the consignor over the electronic bill becomes effective upon a notice that the electronic bill of lading has been created.⁸¹ Transfer of the electronic bill of lading is effected when the holder notifies the registry operator of its intention to do so, accompanied with information about the transferee and the holder's identification number.⁸² The registry operator will

⁷⁴*Ibid* at 304.

⁷⁵*Presidential Decree on the Implementation of the Electronic Bill of Lading Provision of the Commercial Act* (S Korea) No 20829 of 2008 [Presidential Decree].

⁷⁶*Commercial Act* (S Korea) No 6545 of 2001, art 862(5).

⁷⁷Presidential Decree, *supra* note 75, art 14.

⁷⁸*Supra* note 16 at 295.

⁷⁹*Ibid*.

⁸⁰*Ibid* at 295-6.

⁸¹See *Commercial Act* (S Korea) No 6545 of 2001, art 862(2) & (4); Presidential Decree, art 6(3) (S/K).

⁸²*Supra* note 16 at 296.

then reflect the transfer on the electronic record and thereafter notify both parties to the transfer.⁸³

One of the advantages of the KNET is that there is a possibility of reversion to the paper bill of lading upon the request of the holder.⁸⁴ Also, the government's backing of KNET increases users' trust in the system.⁸⁵ However, only electronic bill of lading issued by government-supervised registries have legal and functional equivalence with paper bills of lading.⁸⁶ Further, it seems that the State is not liable for system or operational errors which are borne through higher user fees.⁸⁷

4.4 Conclusion

In response to the challenges facing the electronic bill of lading, particularly the challenge of negotiability, a number of efforts have been made by stakeholders starting with the SeaDocs project and including the use of public and private key cryptography and digital signification. In legal systems such as the UK, Canada and Nigeria where there is not yet any legal accommodation for the negotiation of electronic bill of lading, the third-party or private registry system as has been suggested could be employed to successfully replicate the document-of-title function of the bill of lading in an electronic environment.⁸⁸

⁸³*Ibid.*

⁸⁴*Ibid.*

⁸⁵*Ibid.*

⁸⁶*Ibid* at 296-7.

⁸⁷See generally BA Basu, "Electronic Transport Records: An Opportunity for the Maritime and the Logistics Industries" (2014) 81:1 Journal of Transportation Law, Logistics, and Policy 17.

⁸⁸See *supra* note 21.

Chapter 5: Options Available to Nigeria in Tackling the Challenges Posed by Electronic Bills of Lading

5.1 Common Law Option

5.1.1 Historical Root of the Common Law Option

Lyon has cautioned that in order for law reform efforts to produce concrete results at the operational level of the legal order, such efforts must be made and/or the law reform carried out within the broader context of the basic question of the nature and purpose of law.¹ The central contribution of the law and development scholars of the 1960s and 1990s to socio-legal theories is the illumination provided by their studies and writings that, at least, so far as North-American and Western European models are concerned, law plays a crucial role in facilitating social and economic change, and that protection of property rights and enforcement of contractual rights and obligations through legal reformulation and implementation ensure economic growth.²

The question of the best approach to adopt or the appropriate mix of all or some of the available options in law reform is as important as the primary question of whether to embark on the project in the first place.³ The common law, which gained its foothold into the Canadian and Nigerian legal systems as a colonial legacy of the UK, refers to “judge-made law which originated at a time when the courts were the prime law-makers.”⁴ However, as Hall asserted, in dealing with the question of whether the courts can also participate in law-making along with the legislature, “the answer, I think, is clear if I am

¹JN Lyon, “Law Reform Needs Reform” (1974) 12:2 Osgoode Hall Law Journal 421 at 423.

²T Ginsburg, “Does Law Matter for Economic Development? Evidence From East Asia” (2000) 34:3 Law and Society Review 829 at 831-5.

³See generally Justice K Mason “Rights Protected by Statute and by the Courts” (2003) 26:2 UNSW Law Journal 442 at 444-6.

⁴EM Hall, “Law Reform and the Judiciary's Role” (1972) 10:2 Osgoode Hall Law Journal 399 at 406. See generally also OT Uwakah, *Due Process in Nigeria's Administrative Law System: History, Current Status, and Future* (Lanham, MD: University Press of America, 1997) at 77-9.

right, that the courts and the legislatures are not competitive organs of government, but rather they have a co-operative role to play in furthering the common good.”⁵

5.1.2 Strengths And Weaknesses of the Common Law Option

The courts have always by their pronouncements assisted in the incremental development of the law to address issues of social change. This has been the attitude of the Nigerian courts which have, at one point or the other even in the absence of legislation, and by expansive interpretation of existing rules admitted electronically produced evidence.⁶ The common law based legal reformation, which draws upon the wisdom of earlier decisions through the determination of individual disputes in which litigants and their lawyers present contending arguments on the merit of their respective positions, results in gradual but steady change in the legal order.⁷

But it is an incontrovertible fact that a change in the law effected through the judicial mechanism of expanding existing principles of law to new circumstances does not always meet the need of a society that has witnessed a radical shift in the attitude of its citizens and in the media of contract formation and/or performance.⁸ Further, under the Nigerian Constitution, the principle of separation of power is firmly enshrined in Nigeria. Thus, there is a division of governmental powers or functions among the three arms of government namely, the legislature, the executive and the judiciary.⁹ Accordingly, under the Nigerian constitutional arrangement, the judiciary cannot make radical changes to existing legal rules as that would amount to usurpation of the powers of the legislature and a breach of the sacred principle of separation of power. This limits the extent to which the Nigerian judiciary can address the challenges of the electronic bill of lading. In *UBA v*

⁵Hall, *supra* note 4 at 408.

⁶See for instance, the decisions in *Esso West Afric Inc v T Oyagbola* (1969) 1 NMLR 194 at 198; *Yesufu v African Continental Bank Ltd* (1976) 1 All NLR 328; *Trade Bank Plc v Chami* (2003) 13 NWLR (Pt 836) 158 at 216; *Anyaebosei v RT Brisco Nigeria Ltd* (1987) 3 NWLR (Pt 59) 84; *FRN v Fani-Kayode* (2010) All FWLR (Pt 534) 181.

⁷Hall, *supra* note 4 at 401-5.

⁸*Watkins v. Olafson*, (1989) 2 SCR 750 (Watkins).

⁹*Constitution of Federal Republic of Nigeria*, 1999, ss 4, 5 and 6 respectively (1999 Constitution).

Sani Abacha Foundation for Peace and Unity & Others, the Nigerian Court of Appeal, in appreciation of the principle of separation of power held that:

Though the appellant's counsel made reference to the modern practice of using computers in the day to day business of the bank, it is my opinion that the law still remains as it is. It has not been amended by an Act of the National Assembly, although it is high time they did, and I am bound to apply the law as it is....Hence, I will not deviate from my primary function of interpreting the law as made by the legislature to that of law making.¹⁰

Beyond the question of constitutional limitation and the fact that there is insufficient time and resources at the disposal of the courts to deal with complex computer-related issues, the opportunities for judicial pronouncements on such issues are completely dependent upon the choice of litigants to take the matters to the courts in the first place.¹¹ This explains why a common law shift in legal principles are reactive since it usually operates retrospectively to deal with issues or disputes that have already arisen.¹² This is more so in the case of contracts of carriage of goods by sea where, the parties, in order to save themselves the headaches of delays, technicalities, higher costs and bad feelings associated with traditional litigation, usually opt for arbitration, with cities like London and New York as the venues.¹³ Unlike the *Admiralty Jurisdiction Act*, 1991 (AJA),¹⁴ the *United Nations Convention on the Carriage of Goods by Sea* of 31 March 1978 [Hamburg Rules]¹⁵ which has been domesticated in Nigeria since 2005 through the *United Nations Convention on Carriage of Goods by Sea (Ratification and Enforcement) Act* of 2005 (Hamburg Rules Act),¹⁶ preserves the right of parties to contracts of carriage by sea to

¹⁰(2004) 3 NWLR (Pt. 861) 516 at 543.

¹¹*Supra* note 3 at 445-6.

¹²*Ibid* at 446.

¹³See generally CA Whytock, "Litigation, Arbitration, and the Transnational Shadow of the Law" (2008) 18 *Duke Journal of Comparative & International Law* 449 at 449.

¹⁴*Admiralty Jurisdiction Act*, 1991 Cap. A5 LFN 2004 s 20 (AJA).

¹⁵*United Nations Convention on the Carriage of Goods by Sea*, 31 March 1978, 1695 UNTS 3 (entered into force 1 November 1992) [Hamburg Rules] art 22.

¹⁶*United Nations Convention on Carriage of Goods by Sea (Ratification and Enforcement) Act* No. 19 of 2005 (Hamburg Rules Act).

resort to arbitration in Nigeria or in other venues with sufficient connection to the subject of the contract of carriage to resolve any disputes that may arise under their contract. The implication of this is that in the normal course of maritime transactions and dispute resolutions, the Nigerian courts will not have the opportunity for incremental development of the law of electronic bills of lading since there will be no opportunity for adjudication.

It may not also serve the best interest of the Nigerian society to leave the project of legal response to fundamental change from information and communication technology to the courts which deal with individual cases that may not offer opportunities for a wider view of the existing challenges nor for a proper appreciation of the economic and policy implications of their pronouncements.¹⁷ For example, a Nigerian court adjudicating on questions that border on electronic bills of lading may not have the opportunity or the jurisdictional competence (depending on the relief sought and the issues before it) to consider the broader question of whether its decision will be in line with international electronic commerce rules and practices.

The Nigerian courts have, however, by their decisions on individual cases before them and their express calls to the Nigerian legislature to do what is necessary also spurned some measure of legislative intervention aimed at containing some of the challenges of electronic commerce.¹⁸ In *Federal Republic v Femi Fani-Kayode*, the Nigerian Court of Appeal specifically held that:

The issue of the admissibility of the computer generated evidence has been the subject of controversy for quite sometimes now in Nigeria and presently, the National Assembly is working on appropriate amendments of the Evidence Act to accommodate such evidence. Until such amendments are completed, we shall continue to rely on existing provisions of the Evidence Act and decided cases to resolve the question of whether computer generated documents are admissible under the Evidence Act.¹⁹

¹⁷Watkins, *supra* note 8.

¹⁸T Nwamara, *Electronic Evidence in Nigeria – Disclosure, Discovery and Admissibility* (Aba, Nigeria: Law and Educational Publishers Limited, 2012) at 27-32.

¹⁹(2010) 14 NWLR (Pt 1214) 481 at 497.

Notwithstanding the limitation on Nigerian courts in effecting a radical shift in the Nigerian electronic commerce regime, there is no denying that the courts are more suited to and will continue to assist in accessing the complex web of the traditional common law areas, including contract and restitution, on none of which the legislature has any in-depth knowledge.²⁰ This is especially so given the courts' advantage of the adversarial participation of the litigants and their lawyers²¹ and the fact that electronic commerce legislation (though none is yet in force and applicable to bills of lading in Nigeria) is couched in general formulations meant to achieve accommodation of electronic transactions while leaving a large indeterminate area for incremental development by the judiciary.²²

5.2 Legislative Option

5.2.1 Nigerian Constitutional Context of the Legislative Option

The legislative option for addressing the challenges of the electronic bill of lading in Nigeria will be considered within the context of Nigeria's constitutional framework. Nigeria is a federation of thirty-six states and the federal capital territory.²³ There is a constitutional division of governmental powers between the federal government and the States as the component units in relation to which both are equal and co-ordinate.²⁴ As earlier mentioned in this regard, Nigeria is similar to Canada which also has a constitutional division of governmental powers between the federal government and the federating provinces.²⁵ Also, unlike in the UK, where there is parliamentary supremacy, in Canada and Nigeria, it is constitutional supremacy in which the constitutionality or

²⁰*Supra* note 3 at 445.

²¹*Ibid.*

²²See generally S Grossi, *The U.S. Supreme Court and the Modern Common Law Approach* (Cambridge, UK: Cambridge University Press, 2015) at 18; A Bianchi, D Peat & M Windsor, *Interpretation in International Law* (Oxford, UK: Oxford University Press, 2015) at 182.

²³1999 Constitution, *supra* note 9, s 1 & 1st schedule.

²⁴*Ibid.*, ss 4, 5 & 6.

²⁵*Constitution Acts* 1867 to 1982, ss 91, 92, 93, 95 & 132 (Constitutional Acts) (Canada); see generally, MA Field, *The Differing Federalisms of Canada and the United States* (1992) 5:1 Law and Contemporary Problems 107 at 107-9.

legitimacy of statutes passed by either the Canadian Parliament or the Nigerian Legislature can be judicially questioned and determined.²⁶ The UK's membership of the European Union however has exerted significant inroads into the supremacy of UK's Parliament.²⁷

In both Nigeria and Canada, legislative power over shipping in general and bills of lading in particular resides with the federal legislatures.²⁸ In the case of the UK, the legislative power over shipping and/or bill of lading as well as issues relating to evidence resides with the central unitary government.²⁹ However, while Canadian provincial legislatures have powers to legislate on issues of evidence generally,³⁰ in Nigeria, issues relating to evidence whether generally or specifically in relation to bills of lading is exclusive to the Nigerian National Assembly.³¹

5.2.2 Strengths and Weaknesses of the Legislative Option

Given the nature and extent of the growth in information and communication technology, there is need for significant and far-reaching changes in the contract, commercial and evidence law, rules and principles so as to accord validity to electronic transactions. Such major changes are better in the hands of the legislature which, unlike the courts, has better facilities and opportunities for a wider view and/or proper consideration of the socio-economic, legal and political implications of such changes.³² Furthermore, in a presidential and constitutional democracy like Nigeria, such major changes are within the traditional

²⁶C Moon, "Comparative Constitutional Analysis: Should the United States Supreme Court Join the Dialogue?" (2003) 12:229 Washington University Journal of Law & Policy 229 at 234; *Constitution of the Federal Republic of Nigeria*, 1999, s 1.

²⁷AAE Geçer, "The Principle Of Parliamentary Supremacy In The UK Constitutional Law And Its Limitations" (2013) Ankara Bar Review 157 at 160.

²⁸See the 1999 Constitution, *supra* note 9, s 4 & 2nd Schedule, para 36 and Constitution Acts, *supra* note 25, s 9 respectively.

²⁹P Eleftheriadis, "Parliamentary Sovereignty and the Constitution" (2009) 22:2 Canadian Journal of Law and Jurisprudence 1 at 1-2.

³⁰See generally L Duranti, C Rogers & A Sheppard, "Electronic Records and the Law of Evidence in Canada: The *Uniform Electronic Evidence Act* Twelve Years Later" (2010) 70 The Journal of the Association of Canadian Archivists 95 at 102-4.

³¹1999 Constitution, *supra* note 9, s 4 & 2nd Schedule, para 23.

³²Watkins, *supra* note 8.

responsibility of the Nigerian National Assembly.³³ The fact that the legislative responsibility of reforming the legal rules and principles relating to electronic bills of lading resides exclusively with the Nigerian federal legislature would appear to have made its job easier. The legislature will need to adopt reforms that will guarantee technological neutrality of the law, and achieve legal and functional equivalence between the paper and electronic documents particularly electronic and paper bills of lading.³⁴ Specifically, the legislature will have to craft an act or a regime that could replicate the document-of-title function of the bill of lading. To achieve this, it must conceptualize the fundamentals of “possession” and “holdership” of the bill of lading in an electronic environment.³⁵

As earlier explained, the *Electronic Transactions Bill*, 2011, which has been passed into law by both houses of the Nigerian National Assembly has not yet received presidential assent.³⁶ Even if it is eventually assented to by the Nigerian President, it is not applicable to electronic bills of lading.³⁷ Thus, there is the need for a complete review of existing electronic bill of lading regimes in other jurisdictions and at the international level so as to fashion legislation that will ensure replication of the functions of the traditional bill of lading in an electronic environment, particularly the document-of-title function. The need to align the Nigerian electronic bill of lading laws with what obtains across the globe is informed by the fact that electronic commerce and international shipping are cross-border engagements.

³³1999 Constitution, *supra* note 9, s 4 & 2nd Schedule, paras 36 & 23; Watkins, *supra* note 8.

³⁴See generally AG Hamid, “The Legal Implications of Electronic Bills of Lading: How Imminent is the Demise of Paper Documents?” (2004) 33:3 The Journal of the Malaysian Bar 1 at 5.

³⁵M Goldby, “Legislating to facilitate the use of electronic transferable records: A case study - Reforming the law to facilitate the use of electronic bills of lading in the United Kingdom” (Paper prepared for the UNCITRAL Colloquium on Electronic Commerce held in New York, 14 -16 February 2011) at 5.

³⁶O Aniaka, “Analyzing the Adequacy of Electronic Transactions Bill 2015 in Facilitating E-commerce in Nigeria” online: < SSRN-id2651120.pdf > (the title of this article appears to be inaccurate).

³⁷*Electronic Transactions Bill*, 2011, s 12 (ETB).

5.3 Commercial Option

5.3.1 *Incorporation of International Rules into Carriage of Goods by Sea Contracts*

There are also commercial options for Nigeria. One of such options is for the parties to incorporate by reference, model laws or rules or international practices or a part of them into their contracts for carriage of goods by sea.³⁸ Parties can also make such model laws or rules or international practices a direct part of the terms of their contracts. It is necessary to point out however that, incorporation whether directly or by reference will only be effective when it does not conflict with express prohibition of such laws or rules or practices under the relevant local or international law.³⁹ It is noteworthy that, under the Hamburg Rules, the provisions in Article 22(2), by which a bona fide holder in due course of a bill of lading issued pursuant to a charterparty is not bound by any arbitration agreement in the charterparty except there is a special annotation in the charterparty bill of lading binding such a holder to the arbitration agreement, are by operation of law part and parcel of the contract of carriage between the parties.⁴⁰ Further, the provision of Article 22(4) of the Hamburg Rules, which mandates an arbitrator or arbitral tribunal to apply the Hamburg Rules, is also statutorily incorporated into any contract of carriage between two different states in which:

(a) the port of loading as provided for in the contract of carriage by sea is located in a Contracting State, or (b) the port of discharge as provided for in the contract of carriage by sea is located in a Contracting State, or (c) one of the optional ports of discharge provided for in the contract of carriage by sea is the actual port of discharge and such port is located in a Contracting State, or (d) the bill of lading or other document evidencing the contract of carriage by sea is issued in a Contracting State, or (e) the bill of lading or other document evidencing the contract of carriage by sea provides that the provisions of this Convention or the

³⁸See e.g. Comité Maritime International *Rules for Electronic Bills of Lading* 1990, r 1 (CMI Rules). A discussion of this point can also be found at 2.3.7 above.

³⁹*Ibid*, r 6.

⁴⁰Hamburg Rules, *supra* not 15, art 22(5).

legislation of any State giving effect to them are to govern the contract.⁴¹

Thus, any situation in which Nigeria is the port of loading or discharge or a Nigerian is a defendant to a suit or in which the Hamburg Rules applies, the provision of Article 22(5) of the Hamburg Rules necessarily invalidates any rules or clauses in either the Bolero Rules Book or ESS-Data Bridge Service and Users Agreement which make the United Kingdom's or United States' laws applicable to any arbitration arising under either a Bolero or an ESS-Data Bridge electronic bill of lading. In the same vein, in any similar circumstances, any provisions of the South Korean *Presidential Decree on the Implementation of the Electronic Bill of Lading Provision of the Commercial Act*, 2008 or Article 862(5) of the South Korean *Commercial Act*, 2001 which make Korean laws applicable to any arbitration under KNET electronic bill are equally null and void.

5.3.2 Adoption and Participation in Registry System Arrangements

Nigerians and their business partners can as well adopt and participate in some of the registry systems like Bolero Project and ESS-Databridge as private arrangements to circumvent the challenge of document-of-title function of a bill of lading in an electronic environment. Jurisdiction over Bolero bills of lading resides with the UK courts⁴² while the UK or the US courts exercise jurisdiction over ESS-Databridge electronic bills of lading.⁴³

However, under the AJA:

Any agreement by any person or party to any cause, matter or action which seeks to oust the jurisdiction of the Court shall be null and void, if it relates to any admiralty matter falling under this Decree and if-(a) the place of performance, execution, delivery, act or default is or takes place in Nigeria; or (b) any of the parties resides or has resided in Nigeria; or (c) the payment

⁴¹*Ibid.*

⁴²W Ma, "Lading Without Bills – How Good is the Bolero Bill of Lading in Australia?" (2000) 12:2 Bond Law Review 206 at 214.

⁴³M Goldby, *Electronic Documents in Maritime Trade: Law and Practice* (Oxford, UK: Oxford University Press, 2013) at 120.

under the agreement (implied or express) is made or is to be made in Nigeria; or (d) in any admiralty action or in the case of a maritime lien, the plaintiff submits to the jurisdiction of the Court and makes a declaration to that effect or the *rem* is within Nigerian jurisdiction; or (e) it is a case in which the Federal Military Government or the Government of a State of the Federation is involved and the Government or State submits to the jurisdiction of the Court; or (g) under any convention, for the time being, in force to which Nigeria is a party, the national court of a contracting State is either mandated or has a discretion to assume jurisdiction; or (h) in the opinion of the Court, the cause, matter or action adjudicated (sic) upon in Nigeria.⁴⁴

The above provisions of the AJA have been interpreted by the Nigerian courts in some cases as a statutory prohibition against maritime arbitral agreements and jurisdiction clauses in bills of lading and charter parties over which Nigeria's Federal High Court would ordinarily have had jurisdiction and that any such arbitral agreements or foreign jurisdiction clauses are null and void for being offensive against Section 20 of the AJA.⁴⁵

It can be argued that the Hamburg Rules,⁴⁶ which as a schedule to the Hamburg Rules Act, apply in Nigeria have, by preserving the right of parties to make their own arbitration agreements in their contracts of carriage of goods by sea,⁴⁷ effectively repealed the provision of Section 20 of the AJA by necessary implication and laid to rest any confusion regarding same.⁴⁸ However, while Olaniyan maintains that the Hamburg Rules have not repealed Section 20 of AJA and that a claimant could still invoke its provisions in circumstances falling outside the purview of Article 21 of the Hamburg Rules,⁴⁹ Olawoyin contends that arbitration agreements in contracts of carriage by sea do not oust

⁴⁴AJA, *supra* note 14, s 20.

⁴⁵*Lignes Aeriennes Congolese v Air Atlantic Nigeria Ltd* (2005) 11 CLRN 55 (Lignes Aeriennes Congolese); *M.V. Parnomous Bay & Others v Olam Nigeria Plc* (2004) 5 NWLR (Pt. 865) 1 (M.V. Parnomous).

⁴⁶Hamburg Rules Act, *supra* note 16, Schedule, art 22.

⁴⁷*Ibid*, art. 22(1) & (2).

⁴⁸See generally KU Ugwuokpe, "The Recognition and Enforcement of Arbitral Agreements and Awards in International Maritime Contracts Under the Nigerian Arbitration Law: The Journey So Far?" (2014) [unpublished, archived Dalhousie University School of Law Library] at 55-6.

⁴⁹*Ibid* at 43; HA Olaniyan, Conflict of Laws and an Enlightened Self Interest Critique of Section 20 of the Admiralty Jurisdiction Act of Nigeria" (2012) 1:1 NIALS International Journal of Legislative Drafting 22 at 50.

the maritime jurisdiction of Nigeria's Federal High Court so as to be considered offensive to the provision of Section 20 of the AJA.⁵⁰

While Section 20 of the AJA forbids parties to contracts of carriage from any agreement that ousts the maritime jurisdiction of Nigeria's Federal High Court, Article 21 of the Schedule to the Hamburg Rules Act gives them the right to institute maritime actions on their contracts in any competent court outside the shores of Nigeria in (a) a country within whose territory is situated, (i) the principal place of business of the defendant or, in the absence thereof, the habitual residence of the defendant; or (ii) the place where the contract was made, so long as the defendant has there a place of business, branch, or agency through which the contract was made; or (iii) the port of loading or discharge.⁵¹ The Schedule to the Hamburg Rules Act further grants the parties an unlimited freedom of contract to institute actions in "any additional place designated for that purpose in their contract of carriage by sea."⁵² Article 22 of the Schedule to the Hamburg Rules Act gives the parties similar rights in relation to maritime arbitration as expansive as those given them under Article 21. In these circumstances, it cannot be safely contended that the Hamburg Rules or the Schedule to the Hamburg Rules Act has not by necessary implication repealed Section 20 of the AJA. In *JFT Investment Ltd v Brawal Line Ltd*, the Supreme Court of Nigeria did not mince words on the superior status of binding international conventions to Nigeria's local legislation when it held that:

....I agree with the reasoning therefore that an international agreement embodied in a convention such as Hague Rules is autonomous and above domestic legislation of the subscribing countries and the provisions cannot be suspended or interrupted even by the agreement of the parties....⁵³

⁵⁰*Supra* note 48 at 43; AA Olawoyin, "Safeguarding Arbitral Integrity in Nigeria: Potential Conflict Between Legislative Policies and Foreign Arbitration Clauses in Bills of Lading" (2006) 17.2 *The American Review of International Arbitration* 239 at 264.

⁵¹Hamburg Rules Act, *supra* note 16, Schedule, art 21(a)-(c).

⁵²Hamburg Rules Act, *supra* note 16, Schedule, art 21(d).

⁵³(2010) 18 NWLR (Pt 1225) 495 at 535-6, paras H-A.

The seemingly overreaching effect of the Schedule to the Hamburg Rules Act on Section 20 of the AJA appears to be further confirmed by the provision of Article 21(5) to the effect that any agreement made by the parties after a claim has arisen under the contract of carriage which designate a place where the claimant may institute action is valid.

At any rate, it is necessary to remember that the provision of that Section has never taken away the right of parties to enter into maritime arbitral agreements but only forbids foreign maritime jurisdiction clauses.⁵⁴ It is trite law that arbitration clauses or agreements are not without more an ouster of jurisdiction of the Nigerian courts⁵⁵ whose office under the extant Nigerian Constitution is that of judicial review.⁵⁶ For example, the *Scott v Avery* clauses, which merely encourage parties to submit to arbitration as a condition precedent to instituting an action in court cannot by any stretch of interpretation be said to constitute an ouster of jurisdiction of courts.⁵⁷ This was what informed the Supreme Court of Nigeria's decision in *City Eng. (Nig.) Ltd. v FHA* that parties usually:

...by their contractual agreement, provide resort to arbitration first and only after failure of agreement or arbitral award can a party pursue a cause of action in court...This is not to say the parties, by their agreement, oust the court's jurisdiction; far from it. It only postpones resort to litigation before the court.⁵⁸

The argument that Section 20 of the AJA does not affect the right of parties to maritime arbitration is reinforced by the statement of Galadima JCA in the *M.V. Parnomous Bay case*,⁵⁹ to the effect that Section 20 of the AJA was meant to limit enforceable arbitration agreements to those that have Nigeria as a forum. If Section 20 of the AJA is not a statutory ban against local maritime arbitration as rightly observed by

⁵⁴*Supra* note 48 at 44-5; *Onward Enterprises Limited v MV "Matrix" & 2 Others* (2010) 2 NWLR (Pt 1179) 530 (Onward Enterprises).

⁵⁵*Supra* note 48 at 45; CA Obiozor, "Does an Arbitration Clause or Agreement Oust the Jurisdiction of the Court? A Review of the Case of *M.V. Parnomous Bay & Others v Olam (Nig.) Plc*" (2010) 6:1 Nigeria Bar Journal 165 at 172.

⁵⁶1999 Constitution, *supra* note 9, s 6; *supra* note 48 at 45.

⁵⁷Hamburg Rules Act, *supra* note 16, Schedule, art 21(d); *supra* note 48 at 45.

⁵⁸*City Eng. (Nig.) Ltd. v F.H.A* (1997) 9 NWLR (Pt 520) 224 at 248 cited in *supra* note 55 at 173.

⁵⁹*M.V. Parnomous*, *supra* note 45; *supra* note 48 at 45.

Galadima JCA, there can be no justification for the imagined discrimination against international maritime arbitration. Section 20 of the AJA only prohibits agreements that oust the maritime jurisdiction of Nigeria's Federal High Court as existed in 1991 before the AJA was enacted.⁶⁰ Since the Nigerian National Assembly is assumed to have been aware of existing laws or provisions before the enactment of the AJA,⁶¹ it is necessary to determine the scope of the admiralty jurisdiction of Nigeria's Federal High Court as at 1991 when the AJA was enacted so as to assess the fullest reach of Section 20. The maritime jurisdiction of Nigeria's Federal High Court as at 1991 did not include maritime arbitration.⁶² In *Owners of M. V. Lupex v Nigeria Overseas Chartering and Shipping Ltd*,⁶³ the Supreme Court of Nigeria referred parties to an arbitration in London after overturning the concurrent decisions of both the Federal High Court and the Court of Appeal and refusing an application for a stay of proceedings over an action filed in violation of an arbitral agreement in a charter party. Although the Supreme Court did not consider the provision of Section 20 of the AJA in reaching its decision in *Owners of M. V. Lupex*, Nigeria's Court of Appeal, relying on that Supreme Court's decision, specifically held that Section 20 of AJA does not prohibit foreign arbitral clauses in contracts of carriage of goods by sea.⁶⁴ This is in contradistinction to foreign jurisdiction clauses in maritime contracts which the Supreme Court of Nigeria has made abundantly clear constituted an ouster of the maritime jurisdiction of Nigeria's Federal High Court.⁶⁵ In any event, it is noteworthy that even with the repeal of Section 20 of the AJA, the Nigerian courts will still assume jurisdiction notwithstanding any foreign arbitral or jurisdiction clauses if, upon proper consideration of all the relevant circumstances, it considers itself to be the

⁶⁰See the *Federal High Court Act*, 1973, s 7 (FHCA) and the *Constitution of the Federal Republic of Nigeria*, 1979, s 230(1) (1979 Constitution); *supra* note 48 at 45-6.

⁶¹*Supra* note 48 at 46; FHCA, *supra* note 60, s 7; 1979 Constitution, *supra* note 60, s 230(1).

⁶²*Ibid.* See generally also *Arbitration and Conciliation Act*, 1988, Cap. A18, LFN, 2004, S 54 (ACA).

⁶³ (2003) 15 NWLR (Pt 844) 469; *supra* note 48 at 46.

⁶⁴Onward Enterprises, *supra* note 54; *supra* note 48 at 46.

⁶⁵*JFT Investment Ltd v Brawal Line Ltd* (2010) 18 NWLR (Pt. 1225) 495 at 531-532, paras G-E; *supra* note 48 at 46

most appropriate and convenient forum for resolution of such disputes arising under the Bolero, ESS-Databridge or KNET bill of lading.⁶⁶

5.4 Conclusion

Although the Nigerian judiciary has always been a faithful partner in legal responses to social changes in Nigeria, radical shifts in social relations and/or the media for initiating and sustaining them, such as are represented by the revolution in information and communication technology, are better addressed through wholesale legislative interventions. Establishing an effective legal regime to tackle the challenges of the electronic bill of lading in Nigeria is therefore the primary responsibility of the Nigerian National Assembly. However, any emerging legal rules should be formulated in such general terms as to allow not only for future development in science and technology but also for incremental development of the law of electronic commerce by the Nigerian judiciary. At the private level, Nigerian shipping interests should adopt commercial remedies by participating in the third-party registry systems such as Bolero Project as well as incorporation of relevant model rules into their electronic bills of lading so far as is consistent with the Nigerian legal regimes on electronic commerce and international shipping transactions.

⁶⁶*Elefteria* (1969) 1 Lloyds L R 237 at 242; *Sonnar Nig Ltd v Nordwind* (1987) 4 NWLR (Pt 66) 520 at 546.

Chapter 6: General Conclusion

This thesis has explored the history of the bill of lading which has for centuries been a crucial transport document in international trade transactions. Throughout this period, and before its current electronic phase or nature, the bill of lading has passed through gradual developments in response to the dictating needs of merchants and/or stakeholders in the maritime industry. The use of the electronic bill of lading in shipping transactions across the globe is not yet a complete success story, and the picture is even less bright in regard to emerging economies such as Nigeria.

Although, it has been identified that the use of the electronic bill of lading in shipping businesses has great advantages, including savings in time and monetary costs, the problem has continued to be how to successfully replicate all the functions of the traditional paper bill of lading in an electronic setting. While it may not be difficult for an electronic bill of lading to fulfil the first two functions of a traditional paper bill of lading namely, serving as a receipt for the goods shipped or received for shipment and as evidence of the contract of carriage, the same cannot be said of the third function of serving as a document of title in relation to the goods forming the subject matter of the contract of carriage by sea. Achieving the desired replication of these functions, particularly the third function in an electronic setting, will require responsive legal and policy frameworks and/or adoption of appropriate commercial practices that will accord equal recognition and value to electronic bills of lading as are enjoyed by their conventional counterparts. Apart from the specific challenge of negotiability, the effective utilization of the electronic bill of lading is also hampered by the general challenges that beset all other electronic transactions, namely the question of the time of offer and acceptance made in an electronic setting, the writing and signature requirements, as well as the admissibility and evidential value of electronic communications or documents.

At the global level, there have been concerted efforts to address these problems resulting in international instruments such as the *Comité Maritime International Rules for Electronic Bills of Lading* 1990 (CMI Rules), the *UNCITRAL Model Law on Electronic Commerce*, 1996 (MLEC), the *UNCITRAL Model Law on Electronic Signatures* 2001

(MLES) and the relevant electronic bill of lading provisions of the *Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea* of 11th December, 2008 [Rotterdam Rules]. Some of these instruments like the CMI Rules, MLEC and MLES are mere model rules which, except when adopted into a national statute, do not enjoy the status of mandatory enforcement. Even if these model rules are incorporated into the carriage of goods by sea contracts by the parties, they will have no validity where there is a local law that contains a contrary or prohibitive provision. The Rotterdam Rules, because they have not been ratified by a good number of the major trading nations, are not yet in force. Even if they were to enter into force, they contain no provision that prevents a party from insisting on the use of a paper bill of lading.

Many nations have in one way or another tried to tackle the identified challenges of the electronic bill of lading. The UK and Canada are among such nations. There is no binding electronic commerce legislation in Nigeria, apart from the general provisions of the Nigeria *Evidence Act*, 2011, that has taken cognisance of electronic documents generally. There are, however, two electronic-commerce-focused bills in Nigeria, namely, *Electronic Commerce (Provision of Legal Recognition) Bill*, 2011 (ECPB) and *Electronic Transactions Bill*, 2011 (ETB).¹ While the ETB is before the Nigerian President for his assent,² the present stage or status of the ECPB is not clear since it is possible that it has been replaced with the ETB which like the ECPB is also a general statute on electronic commerce and was introduced as a bill before Nigeria's federal legislature in the same 2011. Section 12 of the ETB excludes the bill of lading from its application. By Section 1(2), the ECPB does not apply to any item listed in its schedule. Section 1(3) empowers the Minister charged with responsibility for commerce to, by order amend, vary, delete from or add to the schedule. Interestingly, the ECPB has no schedule to it.

¹*Electronic Commerce (Provision of Legal Recognition) Bill*, 2011 (ECPB); *Electronic Transactions Bill*, 2011 (ETB); MA Saulawa & JB Marshal, "The Relevance of Electronic Signatures in Electronic Transactions: An Analysis of Legal Framework" (2015) 34 *Journal of Law, Policy and Globalisation* 5 at 11-2; AS Abubakar & FO Adebayo, "Analysis of Electronic Transactions Bill in Nigeria: Issues and Prospects" (2014) 5:2 *Mediterranean Journal of Social Sciences* 215.

²O Aniaka, "Analyzing the Adequacy of Electronic Transactions Bill 2015 in Facilitating E-commerce in Nigeria" online: < SSRN-id2651120.pdf > (the title of this article appears to be inaccurate).

The ECPB appears to be a wholesale adoption of the Malaysian *Electronic Commerce Act*, 2006 (MECA).³ For example, while the preamble to the MECA provides that it is:

An Act to provide for legal recognition of electronic messages in commercial transactions, the use of the electronic messages to fulfil legal requirements and to enable and facilitate commercial transactions through the use of electronic means and other matters connected therewith,⁴

The preamble to the ECPB provides that it is a bill for:

An Act to provide for legal recognition of electronic messages in commercial transactions, the use of the electronic messages to fulfil legal requirements and to enable and facilitate commercial transactions through the use of electronic means and other matters connected therewith.⁵

In the same vein, the interpretation sections of both the MECA and the ECPB are so much the same that the terms under them are defined with exactly the same words except for “Minister”.⁶ Unlike the ECPB which has no schedule, the MECA has a schedule under which negotiable instruments are listed as being outside its application.⁷ Since the ECPB appears to have been modelled on the MECA and both appear to be intended to achieve similar objectives, it can safely be concluded that the ECPB would not be applicable to negotiable instruments which in the loose sense include bills of lading.

Even the UK and Canada, with better and specific electronic commerce laws than Nigeria, have not been able to establish legal frameworks that will dispense with or afford an electronic equivalent of the physical act of negotiation of the traditional bill of lading. Achieving negotiation of the electronic bill of lading under the current UK and Canadian

³*Electronic Commerce Act* No 658 of 2006 (MECA) (Malaysia).

⁴*Ibid*, preamble.

⁵*Ibid*, preamble.

⁶See the MECA, *supra* note 3, s 5 & ECPB, *supra* note 1, s 24 respectively.

⁷ MECA, *supra* note 3, Schedule.

legal systems and indeed the Nigerian legal system will require a scheme that has an inbuilt “guarantee of singularity” or “exclusive control of electronic transport records” so that a holder of the electronic bill can be determined in such a manner as to prevent a situation where a data message already used in transferring rights or obligations is subsequently used inconsistently with such rights or obligations already transferred. This recognition has led to the adoption of the registry platforms particularly in the UK, such as the SeaDocs, the Bolero Project, the DSS-Data Bridge System, and the Korea Trade Net (KTNET) in South Korea.

Nigeria and Nigerians have a number of options to consider in addressing the challenges of electronic bills of lading which, in addition to judicial and legislative interventions, include the registry platforms as well as incorporation of model international legal instruments such as MLEC and MLES or any relevant clauses therein into private contracts. SeaDoc was a failure and so is not among the viable options.

English courts have exclusive jurisdiction to apply English law to issues of non-compliance with the Bolero Rule Book subject to mandatory international rules.⁸ Similarly, the DSUA is governed by English law, but where the contract of carriage is governed by US law, transfer of title to the goods under DSUA will be governed by the law of the State of New York, including the New York *Uniform Commercial Code* (UCC) and the *Uniform Electronic Transactions Act* 1999 (UETA).⁹ In the same vein, the KNET is governed by the South Korean law.

A Bolero or DSS-Data Bridge electronic bill of lading is good so long as it does not contain any arbitration agreement or clause making either English or US law the applicable law since such a clause will be void for being inconsistent with Article 22(4) & (5) of the Hamburg Rules, which are applicable in Nigeria by virtue of the provisions of the *United Nations Convention on Carriage of Goods by Sea (Ratification and*

⁸W Ma, “Lading Without Bills – How Good is the Bolero Bill of Lading in Australia?” (2000) 12:2 Bond Law Review 206 at 213-4.

⁹M Goldby, *Electronic Documents in Maritime Trade: Law and Practice* (Oxford, UK: Oxford University Press, 2013) at 120.

Enforcement) Act.¹⁰ By Article 22(4) & (5), the Hamburg Rules shall be the applicable law to any arbitration arising under a carriage of goods by sea contract to which they apply. The same argument will apply where there is a provision under KNET that makes South Korean law the applicable law. However, a contract of goods by sea effected through a Bolero or DSS-Data Bridge electronic bill of lading is not affected by the provisions of Article 22(4) & (5) of the Hamburg Rules if the arbitration agreement was made after a claim under the Bolero or DSS-Data Bridge electronic bill of lading had arisen.¹¹ Further, a Bolero or DSS-Data Bridge or KNET electronic bill of lading with a foreign jurisdiction and choice of law clauses in favour of the English court and law or US court and law or South Korean court and law is valid and will be upheld by Nigerian courts. But even at that, where Nigerian courts, upon a proper consideration of all the relevant issues come to a conclusion that a Nigerian court is the most appropriate forum to entertain the matter, they will not uphold such foreign jurisdiction or choice of law clauses. Nigerians can adopt the Bolero, DSS-Data Bridge or KNET electronic bill of lading in their carriage of goods by sea contracts since the invalidating effect of Article 22(4) & (5) of the Hamburg Rules on any inconsistent arbitration agreement or the possible non-recognition of foreign jurisdiction or choice of law clauses by Nigerian courts do not place them at any disadvantage, but rather operate against their more powerful foreign shipping partners.

International model rules can also be incorporated into contracts of carriage of goods by sea so long as care is taken to make sure that they do not offend mandatory contrary local laws. It is necessary that parties express themselves in clear terms when they decide to use an electronic bill of lading or incorporate any particular provision of any of the international rules or model laws. This is because the courts may not be willing to uphold the use of an electronic bill of lading or to apply the provisions of any international rules or model laws if there are no express terms for that in the contract of carriage of goods by sea between the parties. This was what informed the decision of the court in *Glencore International AG v. MSC Mediterranean Shipping Company SA and MSC Home*

¹⁰*United Nations Convention on Carriage of Goods by Sea (Ratification and Enforcement) Act No. 19 of 2005 (Hamburg Rules Act).*

¹¹Hamburg Rules, art 22(6). See also Hamburg Rules Act, Schedule, art 22(6).

Terminal NV (MSC Katrina),¹² where the use of and reliance on an Electronic Release System (ERS) introduced by the Antwerp Port resulted in the misappropriation of the shipper/claimant's two containers of cobalt at the Antwerp Port by a third party. The ERS was designed to replace the need for the carrier to issue paper delivery orders or to release cargo in return for bills, and, before the dispute arose, 69 shipments were successfully made between the parties using the scheme. The ERS involved the shipper or its agent using a release note containing a computer-generated four digit PIN to take delivery of the goods upon receipt of a bill of lading. In May 2012, as usual, the claimant sent their agents the relevant bills of lading. The bills expressly stated that they were to be exchanged "for the Goods or a Delivery Order". In June 2012, the claimant's agents lodged one of the bills of lading with the carrier/defendant who later that month emailed the claimant's agents a release note for three containers. However, it was later discovered that two containers had already been collected by a third party. The court rejected the carrier/defendant's argument that the electronic PIN constituted a "Delivery Order" and that the cargo was delivered in accordance with a term implied into the bill of lading and held the carrier liable for the loss.

Judicial determinations and pronouncements will continue to be among the options open to Nigeria for addressing the challenges of the electronic bill of lading. This approach is however limited by the fact that the courts can only deal with individual cases or issues that come before them. Further, the judges may not have the requisite knowledge to deal appropriately and exhaustively with complex technical issues that may be involved in the issuance and operation of the electronic bill of lading. Moreover, the courts cannot embark on radical change in the law of electronic commerce and electronic bill of lading without overreaching the powers and rights of the legislature for law making under the Nigerian Constitution.

The best option will be a legislative intervention by the Nigerian federal legislature. This is because, it is its primary responsibility to make laws on federal issues for Nigeria including any law on electronic bill of lading. The legislature has the special advantage of

¹²(2015) EWHC 1989 (Comm).

being able to appreciate the wider policy implications of any legal reform it might embark on. The provisions of the Rotterdam Rules on electronic bill of lading are a good model. However, in the meantime, the Nigerian courts will need to continue to ensure emergency interventions by their incremental development of the law of electronic commerce and/or bill of lading.

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