

**RECOGNITION OF ELECTRONIC BILL OF LADING IN  
COMMERCIAL TRANSACTIONS: A CRITICAL STUDY OF THE  
LEGAL FRAMEWORK IN TANZANIA**

**By**

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**A Dissertation Submitted in Partial Fulfilment of the Requirement for the Award  
of Master of Laws (LL.M) Commercial Law of Mzumbe University**

**2013**

## CERTIFICATION

We the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled *Recognition of Electronic Bill of Lading in Commercial Transactions: A Critical Study of the Legal Framework in Tanzania* in partial fulfilment of the requirements for award of the degree of Master of Laws (LL.M) Commercial Law of Mzumbe University.

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I, **MATOVU, EBBYCHRIS**, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university in a similar or any other degree award.

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## **DEDICATION**

This dissertation is dedicated to the most precious woman in my life my beloved Mother the Late Shemsa A. Msangi and to my Sister the Late Hawa A. Kulele, may their Souls Rest in Eternal Peace (Amen)

## **ABBREVIATIONS AND ACRONYMS**

AC	Appeals Cases
All ER	All England Reports
Art.	Article
BAL	Bolero Association Ltd
BBL	Bolero Bill of Lading
BCMP	Bolero Core Message Platform
BIL	BOLERO International Limited
BOLERO	Bill Of Lading Electronic Registry Organization
BTR	Bolero Title Registry
CA	Court of Appeal
CAP.	Chapter
CIF	Cost, Insurance and Freight
CMI	Comite Maritime International
COGSA	Carriage of Goods by Sea Act
CRDB	Cooperative Rural Development Bank
DMI	Dar Es Salaam Maritime Institute
E.D.I	Electronic Data Interchange
E-BL	Electronic Bill of Lading
FOB	Free On Board
ICC	International Chamber of Commerce
ICT	Information and Communication Technology
INCOTERMS	International Commercial Terms
INTERTANKO	International Association of Tanker Owners
KB	Kings Bench
MOT	Ministry of Transport
NBC	National Bank of Commerce

NIT	National Institute of Transport
PC	Privy Council
P	Page
Pp	Pages
PK	Private Key
QB	Queen's Bench
QBD	Queen's Bench Division
S.	Section
SUMATRA	Surface and Marine Transport Regulatory Authority
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TAFFA	Tanzania Freight Forwarding Association
TASAA	Tanzania Shipping Agents Association
TLRC	Tanzania Law Reform Commission
TPA	Tanzania Ports Authority
UKHL	United Kingdom House of Lords
UN/EDIFACT	United Nations/Electronic Data Interchange For Administration, Commerce and Transport
UNCID	Uniform Rules of Conduct for Interchange of trade Data by Teletransmission
UNCITRAL	United Nation Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
WLR	Weekly Law Reports

## **ABSTRACT**

Since historic times, bill of lading constitutes one of the oldest forms of contract in international trade. However, it has undergone various transformations from a document of receipt of goods shipped to a document of title representing the goods it describes. Technological advancement has contributed to the great extent to affect the form of a bill of lading in particular. When these happen the mercantile world has already been witnessed traditional paper-based bill of lading lost its merchantability due to the problems caused by delay, fraud and high cost of generating and processing paper documents which slowed down the development of international trade at large.

Solution to the problems of traditional paper-based bill of lading was to introduce the use of Electronic Data Interchange (EDI) in shipping practice by substituting paper documents with electronic alternatives particularly by replicating the features of traditional bill of lading with electronic bill of lading. Unfortunately, electronic bill of lading has faced many legal obstacles in the process of substituting the paper-based bill of lading. Nevertheless, the outmoded legal framework is considered as the major obstacle towards the recognition of electronic bill of lading in international trade. However, some private initiatives have accepted the challenges and they have introduced various private rules trying to overcome the legal uncertainties of electronic bill of lading.

This study has critically examined the legal framework which regulates the contract of carriage of goods by sea, and further it studied how the legal framework has slowed down the recognition of electronic bill of lading in commercial transactions in Tanzania. Along with it, the study has critically examined some relevant projects of electronic bill of lading and their respective rules, and further, it shows how far these projects overcome the legal uncertainties of e-BL especially the negotiability aspect of traditional bill of lading. Lastly, the study has recommended that the Carriage of Goods by Sea Act should be amended, and the government should enact specific laws for electronic transactions in order to make e-BL being recognised in commercial transactions in Tanzania.

## TABLE OF CONTENTS

CERTIFICATION .....	i
DECLARATION .....	ii
AND .....	ii
COPYRIGHT .....	ii
ACKNOWLEDGEMENTS .....	iii
DEDICATION .....	iv
ABBREVIATIONS AND ACRONYMS .....	v
ABSTRACT .....	vii
LIST OF STATUTES .....	xi
LIST OF CASES .....	xii
LIST OF TABLES .....	xiii
LIST OF FIGURES .....	xiv
<b>CHAPTER ONE:</b> .....	1
<b>GENERAL INTRODUCTION AND BACKGROUND</b> .....	1
1.0 Introduction .....	1
1.1 Background to the problem .....	3
1.2 Statement of the Problem .....	9
1.3 Objective of the Research .....	10
1.3.1 General Objective .....	10
1.3.2 Specific Objectives .....	11
1.4 Significance of the Study .....	11
1.5 Hypotheses .....	11
1.6 Literature Review .....	12
1.7 Research Methodology .....	16
1.7.1 Sample and Sampling Procedure .....	17
1. 7.2 Sample Size .....	17
1. 7.4 Methods of Data Collection .....	17
1. 7.4.1 Primary Data .....	18
1. 7.4.2 Secondary Data .....	19
1. 8 Data Analysis .....	20
1.9 Scope of the Study .....	20
1.10 Limitation of the Study .....	21
1.10.1 Time and Financial Factors .....	21
1.10.2 Availability of the Respondents .....	21

<b>CHAPTER TWO:</b>	22
<b>CONCEPTUAL FRAMEWORK</b>	22
2.0 Introduction	22
2.1 Bill of Lading	22
2.2 Contract of Carriage of Goods by Sea	23
2.3 Data Message	24
2.4 Electronic Bill of Lading	24
2.5 Electronic Data Interchange	25
2.6 Electronic Signature	26
2.7 Functional Equivalent	27
2.8 Private Key	28
2.9 Conclusion	28
<b>CHAPTER THREE:</b>	30
<b>A CRITICAL ANALYSIS OF THE LEGAL FRAMEWORK ON THE CONTRACT OF CARRIAGE OF GOODS BY SEA</b>	30
3.0 Introduction	30
3.1 The Legal Regime Governing Carriage of Goods by Sea	30
3.2 The Salient Features of the Carriage of Goods by Sea Act, Cap. 164	31
3.2.1 Scope of Carriage of Goods by Sea Act	31
3.2.2 Incorporated with Hague Rules, 1924	31
3.2.3 The Act Applies to Paper-Based Transport Documents	31
3.3 Legal Requirements for E-BL	32
3.3.1 The Requirement for Originality/Document	33
3.3.2 Requirement of Signature	35
3.3.3 Legal Recognition and Evidential Value of E-BL	36
3.3.4 Document of Title and Negotiability of E-BL	38
3.3.5 Contract Formation	39
3.4 Conclusion	41
<b>CHAPTER FOUR:</b>	42
<b>EXISTING PROJECTS FOR LEGAL SOLUTIONS ON ELECTRONIC BILL OF LADING</b>	42
4.0 Introduction	42
4.1 The SeaDocs Registry	42
4.1.1 Operation of the SeaDocs Registry	43
4.1.2 The Challenges of SeaDocs	44
4.2 The Comite Maritime International	45

4.2.1 The Main Features for CMI Rules of Electronic Bill of Lading.....	46
4.2.2 Creation of the Electronic Bill of Lading under the CMI Rules.....	47
4.2.3 The CMI Rules and the Functional Equivalent to Traditional Bill of Lading.....	49
4.3 The BOLERO Project.....	51
4.3.1 Procedures of Issuance of BBL under BOLERO Rulebook.....	53
4.3.2 How BBL Replicates Core Functional Features of Traditional Bill of Lading.....	54
4.4 Limitation of BBL as a Document Equivalent to Traditional Bill of Lading.....	56
4.5 Other Attempts to Overcome EDI Problems.....	62
4.5.1 UNCITRAL Model Laws.....	57
4.5.2 INCOTERMS.....	60
4.5.3 UNCID.....	61
4.6 Conclusion.....	62
<b>CHAPTER FIVE:</b> .....	<b>63</b>
<b>DATA ANALYSIS AND RESEARCH FINDINGS</b> .....	<b>63</b>
5.0 Introduction.....	63
5.1 The Use of Transportation Documents in Shipping Practice.....	63
5.2 The Use of Electronic Bill of Lading in Shipping Practice in Tanzania.....	67
5.3 The Legal Issues of Electronic Bill of Lading.....	69
5.4 Conclusion.....	73
<b>CHAPTER SIX:</b> .....	<b>74</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS</b> .....	<b>74</b>
6.0 SUMMARY.....	74
6.1 CONCLUSION.....	76
6.2 RECOMMENDATIONS.....	76
<b>REFERENCES</b> .....	<b>79</b>
APPENDIX 1.....	84
APPENDIX 2.....	90
APPENDIX 3.....	92

## LIST OF STATUTES

### **A: International Instruments**

Bill of Lading Electronic Registry Organization (BOLERO) Rule Book, 1999

CMI Rules for Electronic Bills of Lading, 1990

The International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading, 1968 (Hague-Visby Rules)

The International Convention for Unification of Certain Rules of Law Relating to Bills of Lading, 1924 (Hague Rules)

UNCID Uniform Rules of Conduct for Interchange of Trade Data by Teletransmission, 1987

UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996 with additional Article 5 bis as adopted in 1998

UNCITRAL Model Law on Electronic Signatures with Guide to Enactment, 2001

United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, 2009 (Rotterdam Rules)

United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules)

### **B: National Instruments**

The Bills of Exchange Act, [Cap. 225, R.E 2002]

The Carriage of Goods by Sea Act, [Cap. 164, R.E 2002]

The Evidence Act, [Cap. 6, R.E. 2002]

The Interpretation of Laws Act, [Cap. 1, R.E 2002]

The Law of Contract Act, [Cap. 345, R.E 2002]

The Written Laws (Miscellaneous Amendments) Act No. 15 of 2007

## LIST OF CASES

Ardennes (Cargo Owners) v. Ardennes (Owners), The Ardennes [1951] 1 KB 55; [1950] 84 Ll. L. Rep 340

Attorney General of Ceylon v. Scindia Steam Navigation Co Ltd [1962] AC 60, PC

Derby & Co Ltd v. Weldon & Others (No. 9) [1991] 2 All ER 901; [1991] 1 WLR 652

Glyn Mills Currie & Co v. East and West India Dock Co [1882] 7 App Cas 591

J I Mac William Company Inc v. Mediterranean Shipping Company SA, House of Lords Session 2004-05 [2005] UKHL 11

Lickbarrow v. Mason [1793] 2 TR 63

Sanders Bros v. Maclean & Co [1883] 11 QBD 327, CA

Smith v. Bedouin Steam Navigation [1896] AC 70

Snee v. Prescott [1743] 1 Atkyna 245

Sze Hai Tong Bank Ltd v. Rambler Cycle Co Ltd, [1959] AC 576, PC

The Stettin [1889] 14 PD 142

Trust Bank Ltd v. Le-Marsh Enterprises Ltd, Commercial Case No. 4 of 2000, In the High Court of Tanzania (Commercial Division) at Dar-Es-Salaam, (Unreported)

## LIST OF TABLES

Table 4.1: The Use of Transportation Documents in Shipping Practice (More than one answers were required).....	64
Table 4.2: Reasons for Using, Issuing or Requiring Paper-Based Bill of Lading (More than One Answers were required).....	65
Table 4.3: Factors Affecting the Use of Electronic Bill of Lading (More than one answer were required).....	68
Table 4.4: Whether the legal regime regulating contract of carriage of goods by sea is not effective in accommodating e-BL.....	70
Table 4.5: Recognition of E-BL has Failed Due to the Lack of Specific Laws Governing Electronic Transactions in Tanzania.....	72

## LIST OF FIGURES

Figure 4.1: The Use of Transportation Documents in Shipping Practice .....	64
Figure 4.2 Reasons for Using, Issuing or Requiring Paper-Based Bill of Lading (More than One Answers were Required).....	65
Figure 4.3 Factors Affecting the Use of Electronic Bill of Lading.....	68
Figure 4.4: Whether the legal regime regulating contract of carriage of goods by sea is not effective in accommodating e-BL.....	70
Figure 4.5: Recognition of E-BL has failed due to the Lack of Specific Laws Governing Electronic Transactions in Tanzania.....	72

## CHAPTER ONE

### GENERAL INTRODUCTION AND BACKGROUND

#### 1.0 Introduction

The Twentieth Century has witnessed rapid and new innovative technologies with fundamental changes in the way commerce takes place. Those e-commerce changes and the inception of the internet that has been a subject of great interest attracting many people require regulatory changes.<sup>1</sup> These technological transformations introduced Electronic Data Interchange (hereinafter referred as EDI)<sup>2</sup> in international trade, particularly in maritime transport. This is considered as the third revolutionary changes in shipping industry apart from the invention of the steam engine and widespread use of containers as the medium to transport goods.<sup>3</sup>

The introduction of EDI in international trade has significantly impacted the complex and ever-expanding of ocean commerce by introducing an electronic bill of lading (hereinafter referred as e-BL) in shipping practices. The replacement of traditional bills of lading with electronic equivalents presupposes the resolution of certain legal and technological issues.<sup>4</sup> The difficulties that it has faced range from the formation of the contract to its authentication and confidence between its users. Nevertheless, one of their biggest challenges is to attain the function of negotiability thus to be used as collateral security for banks like paper-based bill of lading.<sup>5</sup>

Most developing countries including Tanzania found that they have been lagging behind by these technological changes occurred in the international shipping business while

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<sup>1</sup> Law Reform Commission of Tanzania (LRCT), *How does e-commerce affect commercial law in Tanzania*, Position paper on E-Commerce, p. 1, Retrieved 3<sup>rd</sup> August 2010 from <http://www.lrct.go.tz/position-papers-2>.

<sup>2</sup> Electronic Data Interchange is the electronic transfer from computer to computer of information using an agreed standard to structure the information. UNCITRAL Model law on Electronic Commerce Article 2(b), Retrieved on 06<sup>th</sup> June 2012 from [www.uncitral.org/pdf/english/text/electricom/05.89450\\_Ebook.pdf](http://www.uncitral.org/pdf/english/text/electricom/05.89450_Ebook.pdf)

<sup>3</sup> Puthucherril, T.G. (2009). *Legal recognition of electronic bill of lading under Indian law*. Journal of International Maritime Law (JIML). Law Text Publishing Limited. p. 1. Retrieved on 15<sup>th</sup> August 2012 from [www.academia.edu/papers](http://www.academia.edu/papers)

<sup>4</sup> Yiannopoulos, A.N., (Ed). (1995). *Ocean bills of lading: Traditional forms, substitutes and EDI systems*. (XIV<sup>th</sup>) International Congress of comparative law. Kluwer Law International, p. 32

<sup>5</sup> Ibid

their legal frameworks are still incompatible with the current technological trend of maritime practice for example introduction of EDI and the use of e-BL as a substitute document for traditional bill of lading.

The present study examines the Tanzania's legal framework as well as some private rules which regulate carriage of goods by sea; however an emphasis will be based on electronic documents. As aforesaid, the existing legal framework together with some of technological challenges has slowed down the utility of electronic documents in the shipping industry in Tanzania. Moreover, some studies show that regardless of legal obstacles, private initiatives have accepted the challenge and they introduced electronic version of the bill of lading through voluntary rules, despite no legislative or legal validation,<sup>6</sup> these standards include the Comité Maritime International Rules for Electronic Bills of Lading (hereinafter referred as CMI Rules), Bill of Lading Electronic Registry Organization Rules (hereinafter referred as Bolero Rulebook) and the former SeaDocs which is currently not operating due to some legal and technological challenges it has faced.<sup>7</sup>

Tanzania, like many other shipping nations, has various laws on transportation of goods by sea, and, is a contracting state of The Hague Rules<sup>8</sup> and Hague-Visby Rules<sup>9</sup> as amended. For shipment to and out of Tanzania the bill of lading is issued under The Carriage of Goods by Sea Act <sup>10</sup>(herein referred as COGSA) which is an adoption of the Hague-Visby Rules. Neither, the governing statute which regulate carriage of goods by sea which is The COGSA nor the aforementioned conventions are recognizing e-BL as a substitute document equivalent to traditional paper-based bill of lading despite the viable recommendations of different experts and academicians concerning the immediate call

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<sup>6</sup> Goldby, M. (2011, February), *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. New York. p. 6 Retrieved 16<sup>th</sup> June 2012 from [http://www.uncitral.org/pdf/english/colloquia/EC/Legislating\\_to\\_facilitate\\_the\\_use\\_of\\_electronic\\_transferable\\_records\\_-\\_a\\_case\\_study\\_.pdf](http://www.uncitral.org/pdf/english/colloquia/EC/Legislating_to_facilitate_the_use_of_electronic_transferable_records_-_a_case_study_.pdf)

<sup>7</sup> Ibid

<sup>8</sup> International Convention for The Unification of Certain Rules of Law relating to bills of lading. "Hague Rules 1924", Retrieved from [www.comitemaritime.org/ratific/brus/bru05.html](http://www.comitemaritime.org/ratific/brus/bru05.html)

<sup>9</sup> Protocol to amend the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading, "Hague-Visby Rules 1968", Retrieved from [www.comitemaritime.org/ratific/brus/bru06](http://www.comitemaritime.org/ratific/brus/bru06)

<sup>10</sup> [Cap. 164, R.E. 2002]

for enactment, for instance, UNCITRAL working group<sup>11</sup> and UNCTAD report on electronic commerce and international transport services.

Therefore, this research critically examined some legal impediments which e-BL has faced towards its implementation in international trade as a substitute document for traditional bill of lading. The existing legal impediments such as the formation of contracts, the requirement for writing, recognition of electronic signature/private key in our domestic laws and the issue of admissibility as evidence in our courts of law, the possibilities of using e-BL as a collateral security and the problem of authentication were critically discussed with their relevant laws because these are factors that made the implementation e-BL successful.

### **1.1 Background to the problem**

The history of the bill of lading is interwoven with the *Lex Mercatoria*<sup>12</sup>. Maritime law always formed part of the mercantile law. Materials for the early history of bills of lading are singularly scanty owing to the customary nature of the rules of the mercantile law, and this is why the origin of the bill of lading cannot be easily traceable<sup>13</sup>. However, evidence shows that bill of lading originated from the books of registry whereby the records of goods shipped were kept by the ship's clerk, and that book would also be of the nature of the document of title and at the end of the voyage would manifest the merchant's right to the goods shipped<sup>14</sup>. Thus, it is not surprising if in the Fourteenth Century the contents of the modern bill of lading were entered in the single book kept at a time when parchment was scarce for all the entries required to be made in connection with the affairs of the ship<sup>15</sup>.

During the Sixteenth Century the use of the bill of lading became widespread and continued to develop as a respected document in international trade. Growing trade

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<sup>11</sup> United Nations Commission on International Trade Law, Working Group III: 2002 to Present: Transport Law, Retrieved from [http://www.unictral.org/unictral/en/commission/working\\_group/3transport.html](http://www.unictral.org/unictral/en/commission/working_group/3transport.html)

<sup>12</sup> Is the body of commercial law used by merchants throughout Europe during the medieval period. It evolved similar to English common law as a system of custom and best practice, which was enforced through a system of merchant courts along the main trade routes. One of its features is that, it relies on the legal system developed and administered by the merchants.

<sup>13</sup> Bennett W.P, (1914). *The history and present position of the bill of lading as a document of title to goods*, Cambridge: CUP. pp. 16-24

<sup>14</sup> Ibid

<sup>15</sup> Bennett W.P, Supra note 5

eventually necessitated the transfer of title in the goods before they arrived. This custom arose with the development of international trade when consignors no longer travelled with their goods to sell them at a distant port<sup>16</sup>, but merely consigned goods, that were already sold, to the buyer at that port. It therefore became necessary to endorse the bill of lading to a third party in order to effect the transfer of the goods. The bill of lading became a negotiable instrument in cases where the consignor required transfer of possession and ownership in the cargo while it was still in transit<sup>17</sup>.

Concerning the history of a bill of lading, SF du Toit<sup>18</sup> in his article concluded that the history of the bill of lading that its evolution into its current form was a process that took place over many years. Only when the need arose for the bill of lading to be a document of title in addition to being a receipt and evidence of the contract of carriage, did the bill of lading eventually become a document of title. This long period of development is not a luxury that any other document will have<sup>19</sup>, therefore e-BL needs custom and usage in order to be common among merchants.

The advantages of the traditional bill of lading in international trade are largely self-evident when viewed against its functions. The traditional bill of lading has three functions, in ascending order of complexity it stands as the receipt for the goods shipped or received for shipment by the carrier, it may be used as the evidence of the contract of carriage and finally it may serve as the document of title.<sup>20</sup>

One of the functions of a bill of lading is to act as a receipt of goods shipped; it states the condition and quantity of the goods when they are transferred into the custody of the carrier. It also states the date on which they were loaded, and will identify the carrying vessel as well as the ports of loading and discharge.<sup>21</sup> The life of bill of lading as the receipt of goods to be shipped started from the mates receipts which are the ship's

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<sup>16</sup> Ibid

<sup>17</sup> See, the case of Lickbarrow vs. Mason [1793] 2 TR 63, Also, Bennett W.P, (1914). *The history and present position of the bill of lading as a document of title to goods*, CUP. pp. 16-24

<sup>18</sup> SF du Toit (2005). *The evolution of the bill of lading*, Fundamina University of Johannesburg, Retrieved on 23<sup>rd</sup> May 2013 from

<http://uir.unisa.ac.za/bitstream/handle/10500/3629/Du%20Toit%208%20December%202005.pdf?sequence=1>

<sup>19</sup> Ibid

<sup>20</sup> Carr, I. (2010). *Internal trade law* (4<sup>th</sup> Ed), Routledge-Cavendish Publishing Limited. p. 181

<sup>21</sup> Baughen, S. (2009). *Shipping law* (4<sup>th</sup> Ed.). Routledge-Cavendish, p. 5

records of the cargo loaded and presented to an agent of the carrier, such as the captain of the vessel (the ship master), for signature.<sup>22</sup> The purpose of this receipt is to enable the receiver of the goods to obtain the same amount and quality of goods from the carrier, as was delivered by the shipper thereof, thus acting as evidence of such facts.<sup>23</sup>

Bill of lading is also regarded as evidence of the contract of carriage concluded between the consignor of the goods and the carrier thereof. The bill of lading is not the contract of carriage in itself. It may be that the contract has already been concluded with the issuing of the booking note. But, it is a proof that a carriage contract in respect of the mentioned cargo exists for the mentioned voyage.<sup>24</sup> The details of the bill of lading should reflect the terms and condition agreed orally in case when the dispute arises, a shipper would be able to complain upon receiving the goods that do not reflect the agreement between parties.<sup>25</sup> Therefore, bill of lading is the memorandum of the contract of carriage, repeating in details the terms of the contract which was in fact concluded prior to the signing of the bill of lading.

Thirdly, bill of lading is usually referred to as being a document of title. This function was first recognized by the courts in the case of **Lickbarrow v. Mason**<sup>26</sup> where it was found that by transferring the paper bill of lading the right of possession of the goods represented by it is transferred. The transferability, respective to the degree of transferability of the bill of lading, depends on the form the bill of lading is issued in. It might be issued “to order” of the shipper or in blank, then it is transferable by endorsement or by naming a consignee. The other possibility is to issue the bill of lading with a named consignee without any option “to order”, then the bill of lading is non-negotiable or “straight” and as a consequence it lacks the transferable function.

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<sup>22</sup> Ibid

<sup>23</sup> S. 4 Article 3 of the Carriage of Goods by Sea Act, Cap 164 R.E 2002, *See also*, Dockray, M. (2004), *Cases and materials on the carriage of goods by sea* (3<sup>rd</sup> Ed). Cavendish Publishing Limited. p. 89

<sup>24</sup> Hare, J. (2009). *Shipping law and admiralty jurisdiction in South Africa* (2<sup>nd</sup> Ed), South Africa: Juta Law Publishers, p. 549

<sup>25</sup> *See*, the Case of Ardennes (Cargo Owners) v Ardennes (Owners), The Ardennes [1951] 1 KB 55; [1950] 84 LIL Rep 340

<sup>26</sup> [1793] TR 63

Traditional paper transport documents have served the shipping industry for Centuries. But the paper form of transport documents has some substantial disadvantages as explained hereunder;

The paper trail which is generated using a paper bill of lading is extremely costly and results in a slower rather than an efficient means of transfer as banks would require.<sup>27</sup> The cost of producing all these documents in a paper format is estimated to be approximately 10% of the invoice value of the goods and the weight of all the documents for the consignments aboard a single vessel can exceed 40 kilograms.<sup>28</sup> So, the cost of processing and transporting these documents sometimes sparked some other disadvantages of using paper-based bill of lading in international trade.

The advent of containerization and other changes in ship design and navigation have greatly enhanced the speed and efficiency with which goods can be transported. The result is that the cargo often arrives at the port of discharge prior to the bill of lading.<sup>29</sup> This results in delays, deterioration of the cargo and demurrage costs as the cargo will often not be released to the consignee unless the relevant documents are presented, so this makes a traditional paper bill of lading to lose its merchantability in international trade.<sup>30</sup>

Another disadvantage of paper-based bill of lading is fraud<sup>31</sup>. Fraud in the paper documentation system is relatively common, because one of the three bills of lading issued by the carrier can be misused. Moreover, traditional bills of lading can be falsified in a number of ways; by altering the quantity and quality of goods shipped in the bill of lading; in spite of the fact that an original bill of lading has been issued, the consignor may fraudulently sell the goods to other buyers during transit, for example this was happening in the English case of **Glyn Mills Currie & Co v. East & West India Dock**

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<sup>27</sup> Rouhsh, L. *Replacing the paper bill of lading with an electronic bill of lading: problems and possible solution*. In International Trade and Business law Annual Volume 5, Cavendish Publishing Limited, The Glass House, Wharton Street London, UK. p. 159, Retrieved 6<sup>th</sup> August 2012 from <http://www.cavendishpublishing.com>

<sup>28</sup> Kozolchik, B. (1992), *Evolution of the ocean bill of lading from a banking law perspective* Journal of Maritime Law and Commerce 1992 23, p. 212

<sup>29</sup> Ibid

<sup>30</sup> Yiannopoulos, A.N. (1995). *Ocean bills of lading: Traditional forms, substitutes, and EDI systems*. Kluwer Law International, p. 17

<sup>31</sup> UNCTAD, *The Use of transport documents in international trade*, (UNCTAD/SDTE/TLB/2003/3), pp. 82-86

Co,<sup>32</sup> a dishonest shipper, for example, may negotiate the three original bills to three different people, “all of whom take in good faith”; the bill of lading can also be counterfeited in order to obtain fraudulent delivery; and it is possible to forge the bill of lading in order to obtain payment in a documentary credit, therefore these factors make the traditional bill of lading to be unattractive to most merchants today.<sup>33</sup>

The inclusion of inaccuracy or insufficient information on bill of lading has been an ever recurring problem of traditional paper bill of lading. Yiannopoulos<sup>34</sup> finds that, the discrepancies in the bill of lading usually related to data concerning the goods or the consignee delay the release of goods because the carrier may have to survey the goods, amend the ship’s manifest and possibly amend the bill of lading. The cost involved in the completion of documents, inaccuracies in duplication data and delay in factories and customs account for 10% of the total cost of exported goods.<sup>35</sup>

The aforementioned problems lead to the demise of traditional bill of lading thus the shipping communities looking at the ways to replace the traditional paper-based bill of lading. One option is to replace bill of lading with seaway bill and another option is to use EDI (e-BL). Sea waybill has several shortcomings, it lacks some essential features of traditional bill of lading as a document of title thus it is non-negotiable document and it does not afford security that traditional bill of lading provide although banks accept it.<sup>36</sup> Nevertheless, different reports reveal the popularity of seaway bills continue to increase and used as an alternative to the traditional bill of lading.

The use of EDI in international trade has been introduced by the Seaborne Trade Documentation System (SeaDocs) in 1986 after being proved that paper-based documents are not in a position to handle the most complex, faster and huge volume of international trade transactions in terms of efficiency and security.<sup>37</sup> Moreover, technological advances in the field of maritime commerce including faster ships, containerized cargo processing and multimodal transportation has provided the impetus

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<sup>32</sup> (1882) 7 App Cas 591

<sup>33</sup> Ibid

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<sup>35</sup> Boss, A. (1991), *The international commercial use of EDI and electronic communication technology*, 46 Business Law, p. 1787

<sup>36</sup> Ibid

<sup>37</sup> Carr, I. (2010), *International trade law (4<sup>th</sup> Ed)*. Routledge-Cavendish Publishers. pp. 200-204

for the adoption of e-BL and non negotiable seaway bill.<sup>38</sup> Essentially, the reason behind the introduction of e-BL in international trade was to solve the problems created by the use of paper-based bill of lading as mentioned above. However, e-BL enjoys several advantages over traditional paper based bill of lading, hereunder are some of them;

The primary advantages of electronic documents lie in the ease and speed with which they can be exchanged. A system of using such documents would also centralize information that is currently fragmented, such as the location and destination of particular cargoes.<sup>39</sup> Electronic documents can thus resolve the two primary problems associated with current “freight locator” services: their slowness and the cost per transaction.<sup>40</sup> In addition, electronic documents can more effectively facilitate the secondary aspects of transferring bills of lading, such as financing.

E-BL would also reduce the amount of paper shuffling that exists at present. It has been estimated that the complete documentation for all consignments on board a modern container ship may weigh over 40 kilograms.<sup>41</sup> Not only are postage and handling costs high, but the international mails are slow and unreliable, so that the number of documents lost is significant.

Last but not least, electronic documents would greatly enhance the market for goods shipped under bills of lading; potential buyers would be able to locate goods much more quickly using the computer system than is possible at present. Also, e-BL would also decrease the number of middlemen involved in the transaction; ease of doing the business over long distances; and it would increase the accuracy and standardization of business communication.<sup>42</sup>

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<sup>38</sup> Ibid

<sup>39</sup> Merges R.P., Reynolds G.H. (1986) *Toward a computerized system for negotiating ocean bills of lading*, 6 J.L. & Com. 23 pp. 24-25 Retrieved 7<sup>th</sup> February 2013 from <http://scholarship.law.berkeley.edu/facpubs/1381>

<sup>40</sup> Ibid

<sup>41</sup> Gronfors, (1976). *Simplification of documentation and document replacement*, 3 LLOYD'S MAR. & COM. L.Q. 250, pp. 13-14

<sup>42</sup> Ibid

The use of EDI would reduce the problems associated with traditional paper-based bill of lading in shipping practice as aforementioned<sup>43</sup>. It should be noted that, Tanzania like other developing countries has been lagging behind technological and legal framework which would be the catalyst for the development and implementation of EDI in the shipping industry.<sup>44</sup> Tanzania legal framework seems to be drafted to regulate paper-based documents, thus it does not recognize any ingredients which are required for the utility of electronic documents for example electronic signature, originality, and writing.<sup>45</sup>

Moreover, concerning technological development there are several impediments which prevent the utility of e-BL in shipping practice in Tanzania. Experts and reliable network are very important tools required for the development and implementation of EDI particularly in shipping industry today.<sup>46</sup> Most of trade partners in Tanzania are not familiar with these technological advancements developing in shipping industry today, for example the use of computer and internet, so these are among the factors that impede the implementation of the use of e-documents in shipping industry today.

## **1.2 Statement of the Problem**

The utility of e-BL in Tanzania as a substitute document for traditional bill of lading is not well recognized in Tanzania due to different reasons; among the reasons is a poor legal framework. The existing legal framework of Tanzania is outdated and fails to recognize electronic documents, consequently the requirement of paper consistently limit the acceleration of e-commerce and development of EDI particularly e-BL in shipping practice.

The COGSA<sup>47</sup> provides the rules relating to bills of lading in its schedule as it has been annexed from The Hague Rules as amended by the Visby protocol of 1968 and such

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<sup>43</sup> UNCTAD. (2003). *The use of transport documents in international trade*, Report by the UNCTAD Secretariat (UNCTAD/SDTE/TLB/2003/3). p. 4 Available at [http://unctad.org/en/Docs/sdtetlb20033\\_en.pdf](http://unctad.org/en/Docs/sdtetlb20033_en.pdf)

<sup>44</sup> Ewelukwa, N. *Is Africa ready for electronic commerce? A critical appraisal of the legal framework for e-commerce in Africa*, Paper Presented at 1<sup>st</sup> African Conference on International Commercial Law 13-14 January 2011 in Douala Cameroon, pp.. 23-25. Retrieved on 12<sup>th</sup> December 2012 at [http://docsfiles.com/pdf\\_is\\_africa\\_ready\\_for\\_electronic\\_commerce\\_a\\_critical\\_appraisal\\_of.html](http://docsfiles.com/pdf_is_africa_ready_for_electronic_commerce_a_critical_appraisal_of.html)

<sup>45</sup> Ibid

<sup>46</sup> Ibid

<sup>47</sup> The Carriage of Goods by Sea Act, [Cap. 164, R.E 2002]

amendments came into force in 1977. There are lacunas on the current legal regime surrounding bills of lading and it does not seem, on the face of it to produce a computerized system. Under S. 4 Art. 1 of the Rules defines the contract of carriage applies only to contracts of carriage covered by a bill of lading or any similar document of title.... Thus, from this provision it is clear that, the basic statute and the convention (Hague Rules) are not well designed to recognize the status quo of e-BL and the definition does not refer to the e-BL as an equivalent to paper-based bill of lading.

The requirement of writing as a condition of the validity of a legal transaction clearly represents an absolute major impediment to the development of EDI particularly e-BL in shipping practice. This requirement still exists under the provision of S. 4 Art. 3 (3) (a)-(c) of the COGSA<sup>48</sup> which requires, the carrier, master or agents of the carrier after receiving the goods to be shipped into his charge, to issue to the shipper a bill of lading in “writing” which stipulates the number of packages...., in this regards, the provision was actually designed to govern paper-based bill of lading, therefore it would be difficult for e-BL to be regulated by this legal regime especially under this particular provision.

Therefore, from aforementioned overview, this research examined the legal and practical issues associated with the use of e-BL as the substitute document which was intentionally introduced by shipping communities to solve all problems of traditional paper-based bill of lading in shipping practice as well as in commercial transactions. However, the researcher made a critical analysis of the existing legal framework of Tanzania which seems to be the factor that impedes the implementation of the use of electronic documents in shipping practice in Tanzania.

### **1.3 Objective of the Research**

In order to critically examine the hindrances which make e-BL unrecognized in commercial transactions; the following are the objectives of this research;

#### **1.3.1 General Objective**

- (i) To address the legal issues of introducing e-BL as a substitute document which replicates essential features of the traditional paper-based bill of lading in international trade.

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<sup>48</sup> Ibid

### **1.3.2 Specific Objectives**

- (i) To critically examine the Carriage of Goods by Sea Act; and show how it has failed to recognize e-BL as the document equivalent to traditional paper-based bill of lading.
- (ii) To make a deep analysis on how e-BL would replicate the negotiability function of traditional paper-based bill of lading in its original form as the data message.
- (iii) To examine to what extent, e-BL would solve the associated problems created by traditional paper-based bill of lading in international trade.

### **1.4 Significance of the Study**

This research is important to the academic communities and other members of the legal profession in Tanzania and other countries in general. This research examined the governing law of transportation of goods by sea which is also regulating the contracts of carriage of goods by sea. By doing so, this analysis placed the reader in a position of acquiring sufficient knowledge and understanding of the use of EDI particularly e-BL in Tanzania.

Furthermore, this research is useful and adds new knowledge to the port communities, port authorities, shipping companies and their respective agents and other stakeholders to understand the advantages of using e-BL as an alternative document to traditional paper-based bill of lading.

Moreover, this research is expected to be useful to the government, Non-Governmental Organizations and public at large, to realize the necessity of amending the existing legal framework or enact new laws which recognize the status of e-BL as the transportation document equivalent to traditional paper-based bill of lading in commercial transactions.

### **1.5 Hypotheses**

This research was guided by the following hypotheses:

- (i) The legal regime regulating contract of carriage of goods by sea is not effective in accommodating e-BL.
- (ii) Recognition of e-BL has failed due to lack of specific laws governing electronic transactions in Tanzania.

## 1.6 Literature Review

**Laryea, Emanuel T.**<sup>49</sup> in his article believes that, four thresholds technological steps are needed to operate paperless international trade as follows; firstly, trade partner and their agents must have the technology-hardware, software, and other accessories to install and maintain an electronic system at acceptable international standards. Secondly, government agencies must have the technology to support electronic systems and must have installed electronic clearance systems to which trade partners and other like entities are connected. Thirdly, banks and other financial institutions must have the technology and must have installed an electronic system to which importers, exporters and other entities are connected and the system be connected to the international business community, and fourthly, there must, in every country, be a minimum national technological infrastructure-technical and regulatory.<sup>50</sup> Laryea, centres his focus on technological factors which hinders the implementation of EDI in international trade, but he did not discuss the legal issues of e-BL in developing countries which is the centre of this study.

**Roger Jones., Et al.**<sup>51</sup> agreed with other writers that, e-BL removes the disadvantages associated with the paper-based bill of lading for the following reasons; firstly, EDI eliminates the need for paper documentation. Switching from the paper bill of lading to electronic ones will save the shipping community the administrative cost involved in preparing and processing paper documentation. Secondly, e-alternatives eliminate the problems of delay at the port of discharge because the speed at which an e-BL can be processed is virtually “instantaneous”; therefore, this will reduce port congestion and result in faster turnaround of ships in ports. The author, discussed more on the advantages arising from using e-BL in international trade, but he did not critically discuss about the essence of electronic laws towards the recognition of e-BL, so this study however focused on this issue concerned.

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<sup>49</sup>Laryea, E.T. (1999). *The technological challenges facing developing countries in the move to paperless international trade*, Bond Law Review: Vol. 11: Iss. 2, Article 10. Retrieved on 27<sup>th</sup> October 2012 from <http://epublications.bond.edu.au/blr/vol11/iss2/10>

<sup>50</sup> See also, Carruthers K.J. (1990). *The legal implication for carriers, shippers, bankers and insurers of EDI, with particular reference to the electronic bills of lading regime*, A paper prepared for the November 1990 Australian Chamber of Shipping Quarterly Luncheon, Sydney

<sup>51</sup> Roger J, et al. (2000). *International trade and business law annual*. Volume 5, Cavendish Publishing Limited, The Glass House, Wharton Street London, UK. pp. 167- 170, Retrieved 6<sup>th</sup> August 2012 from <http://www.cavendishpublishing.com>

**Athanassios N. Yiannopoulos**,<sup>52</sup> argued that, the replacement of traditional bill of lading with electronic equivalents presupposes the resolution of certain legal and technological issues like the satisfaction of writing and signing requirements, determination of the place of contract formation, the allocation of liability for erroneous, communication failures and breakdowns, the incorporation of general terms and conditions and the safeguarding of the privacy. Therefore, the author believes that when the legal framework covers those aforementioned legal uncertainties, e-BL will be embraced by all trade partners in international trade. Despite the legal impediments of e-BL the author has discussed in order to recognize e-BL in international trade, his work does not cover the comprehensive study on how e-BL would be recognized in commercial transactions especially in developing countries and which mechanism in the law should be employed in order to ensure e-BL recognized to all commercial parties.

**Marek Dubovec**<sup>53</sup> examined the limitations of e-BL and its future as valuable collateral in secured lending and letter of credit transactions. In the opinion of the author, physical transfer of the document of title provides a direct link between the creditor's rights and his collateral. However, in the case of electronic documents of title, the author raises certain doubts as electronic documents are intangible hence this function will not be easily replicated. So, in this aspect, the researcher disagree with the author's doubt concerning negotiability aspect of e-BL, for instance, the provision of Article 7 of CMI Rules recognize that e-BL can be transferred to another party by using the private key of the current holder of the document. However, Dubovec discussed about legal uncertainties of e-BL, but the author did not discuss more about what the legal framework should cover in order to achieve full confidence and trust from all stakeholders involved in international trade, and also, in order to attain legal recognition of e-BL in commercial transactions at large.

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<sup>52</sup>Yiannopoulos, A.N. (Ed). (1995). *Ocean bills of lading: Traditional forms, substitutes and EDI systems*. (XIV<sup>th</sup>) International Congress of Comparative Law. Kluwer Law International. pp. 3-53

<sup>53</sup> Dubovec, M (2006). *The problems and possibilities for using electronic bills of lading as collateral*, Arizona Journal of International and Comparative Law Vol.23, No.2 2006 available at <http://www.ajicl.org/AJICL2006/vol232/Dubovec%20note.pdf> . or at Dubovec, Marek, UCC Article 9 Registration System for Latin America (December 1, 2010). Arizona Journal of International and Comparative Law, Vol. 28, No. 1, 2011, retrieved 26<sup>th</sup> October 2012 from SSRN: <http://ssrn.com/abstract=2135261> or <http://dx.doi.org/10.2139/ssrn.2135261> .

**John F. Wilson**<sup>54</sup> believes that e-BL is the most important alternative to the traditional bills of lading than seaway bill<sup>55</sup>, short form bill of lading and straight bill of lading. However, the author raises doubts about the acceptability of electronic alternative by referring to a survey conducted by UNCTAD. He argues that, even if the electronic alternative is faster and reduces the cost of the transactions, the users of traditional bills of lading are not ready to accept the former, because the existing systems are not secure and underlying legal framework is either unclear or inadequate. The author is very clear and precise concerning the essence of replicating traditional bill of lading with e-BL, but the author did not discuss about various initiatives like CMI and Bolero which have already established their private rules in order to solve the aforementioned legal barriers of e-BL. So this research critically discussed the legal uncertainties of e-BL and show how e-BL can also be negotiated to subsequent parties, this analysis was supported with reference to various projects of e-BL.

**Livermore, J. et al**<sup>56</sup> discussed a number of obstacles of using EDI for electronic bills of lading, both in terms of computer technology development and legal issues. Further, the author discussed about the legal recognition and evidential value of data message by e-BL as the legal impediment towards the effective use of e-BL in shipping practice. The discussion is based on two issues, firstly is the requirement of document and admissibility as evidence in courts. The author noted that, a solution to the problem given by the Model Law that, information should not be denied effectiveness, validity or enforceability solely on the grounds that it is in the form of a data message.<sup>57</sup> Also, Article 8<sup>58</sup> provides in reference to admissibility and evidential value of data messages in any legal proceedings that, nothing in the application of the rules of evidence shall apply so as to prevent the admission of a data message in evidence on the ground that it is a data message. This suggests that, the author impliedly agreed that e-BL can replicate the functional features

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<sup>54</sup> Wilson, J.F. (2008). *Carriage of goods by sea* (6<sup>th</sup> Ed), Pearson Education Ltd. pp. 155-171

<sup>55</sup> This is transport document which has only two common feature of traditional paper based bill of lading i.e. receipt of goods shipped and evidencing the contract of carriage, but seaway bills is not bill of lading in true sense because it lacks the third feature as a document of title.

<sup>56</sup> Livermore J et al. (1998), *Electronic bills of lading and functional equivalence*, (2) The Journal of Information, Law and Technology (JILT). retrieved 7<sup>th</sup> August 2012 from [http://elj.warwick.ac.uk/jilt/ecom/98\\_2liv/](http://elj.warwick.ac.uk/jilt/ecom/98_2liv/)

<sup>57</sup> UNCITRAL Model Law on Electronic Commerce with Guide to Enactment with additional article 5 bis as adopted in 1998. Retrieved 9<sup>th</sup> October 2012 from

[http://www.uncitral.org/uncitral/en/uncitral\\_texts/electronic\\_commerce/1996Model.html](http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html)

<sup>58</sup> Ibid

of trading, but he fails to show which legal strategies should be used in order to attain the recognition of e-BL in international trade.

**Miriam Goldby**<sup>59</sup> in her paper believes that, the legal uncertainty which arises from lack of clear legal framework supporting electronic alternatives creates possible risks that potential users may be reluctant to take in order to reap the benefits of electronic replication. However, the author observed that, not only legislative reforms and enactments are the possible solution to the problems of replicating conventional bills with electronic equivalence, but also the negotiability aspect of e-alternatives is another obstacle. She recommended that in order to facilitate the development of e-alternatives to documents of title it is essential to translate, in legal terms, the concepts of “possession” and “holdership” into concepts that make sense in the electronic medium. She added that, this translation needs to be understood uniformly in different jurisdictions as the appeal of documents of title, like conventional bills of lading. Therefore, this work will however, discuss the aspect of negotiability of e-BL by referring to various attempts of existing projects of e-BL, moreover the success and failure of these projects will also be highlighted by the researcher.

**UNCTAD**,<sup>60</sup> the report presented by UNCTAD experts, discussed the role of transport documents in international trade, particularly bills of lading, as well as their replacement by electronic alternatives. In this report the experts have found that both sets of Rules The Hague-Visby Rules impose the mandatory application of using paper-based documents in shipping. It is however that, the report intends to promote the non-negotiable seaway bills or e-BL to replicate conventional bills. Nevertheless, the international commercial communities are not ready to accept them, until the e-alternatives replicate all functions of traditional bill of lading. This suggests that, the report did not even consider other international legal regime which recognizes e-BL as a document equivalent to paper-

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<sup>59</sup> Goldby, M. (February 14<sup>th</sup> -16, 2011), *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 New York. p.. 6 Retrieved 16<sup>th</sup> June 2012 from [http://www.uncitral.org/pdf/english/colloquia/EC/Legislating\\_to\\_facilitate\\_the\\_use\\_of\\_electronic\\_transferable\\_records\\_-\\_a\\_case\\_study.pdf](http://www.uncitral.org/pdf/english/colloquia/EC/Legislating_to_facilitate_the_use_of_electronic_transferable_records_-_a_case_study.pdf)

<sup>60</sup> UNCTAD, *The Use of Transport Documents in International Trade*, Report by the UNCTAD Secretariat (UNCTAD/SDTE/TLB/2003/3)

based bill of lading for instance Rotterdam Rules.<sup>61</sup> Moreover, the report did not pay its attention on discussing in details about existing projects of e-BL, so this study also studied critically how these projects replicates the functional features of paper-based bill of lading electronically.

**Georgios I. Zekos**<sup>62</sup> observed that the e-BL must be the contract of carriage, which complies with the practical usage of bills of lading as standard form contracts as well. E-BL as the substitution of the paper bill of lading has to accommodate its contractual function. The introduction of e-BL is not intended to lead to an abolition of their contractual function but simply to achieve a quicker transfer of the bill of lading contract to its destination. Furthermore the author when analyzing the negotiability feature of e-BL observed that, e-BL as a negotiable instrument has to be a contract by itself, which means that it will be the contract of carriage. The e-BL, by being a negotiable instrument, is by nature a formal contract and, as such, supersedes any prior agreements or any underlying contract. However, the author did not discuss how e-BL can be negotiated to subsequent parties by using a private key or digital signature similar to paper-based bill of lading. Moreover, the process of transferring e-BL either by using central registry system or carrier as the central part has not well covered by the author. This study therefore intended to take further steps from such work and illustrate critically how e-BL can be negotiated as paper-based bill of lading.

### **1.7 Research Methodology**

The methodologies applied in this study were qualitative and quantitative. While several pieces of literature on the carriage of goods by sea were read and analyzed, most data were obtained through interviews and questionnaires. The questionnaire methods were adopted to enable the lawyers and all trade partners interviewed to assume their adequate role in the study. This assisted the researcher in shaping, verifying and analyzing the results of the study. Therefore the methods of data collection involved two types of information and data collection methods; these were library research and field research commonly known as primary data and secondary data.

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<sup>61</sup> See, Article 1 (2) (b) of Rotterdam Rules

<sup>62</sup> Zekos, G.I., (2005). *Electronic bills of lading and negotiability*, The Journal of World Intellectual Property Volume 4, Issue 6. p. 997, Retrieved on 19<sup>th</sup> Nov 2012 from <http://onlinelibrary.wiley.com/doi/10.1111/j.1747-1796.2001.tb00145.x/pdf>

### **1.7.1 Sample and Sampling Procedure**

The selection of respondents was based on purposive sampling especially to the respondents who have sufficient knowledge about e-BL as a transport document equivalent to traditional bills of lading. The selection was drawn from Tanzania Shipping Agents Association (TASAA), lawyers (Maritime lawyers), Tanzania Freights Forwarders Association (TAFFA) where the researcher selected two reputable freight-forwarding companies to collect data. Furthermore, the data were also collected from banks where letters of credits are processed, shippers/consignees/freight and forwarding company, relevant institutions of transport studies these are D.M.I and N.I.T, Surface and Marine Transport Regulatory Authority (SUMATRA), The Ministry of Transport (M.O.T) and its affiliated authorities like Tanzania Ports Authority (T.P.A).

### **1. 7.2 Sample Size**

This research was conducted in Tanzania (Mainland), particularly in Dar-Es-Salaam. Selection of this area was due to the availability of reliable respondents, detailed information concerning the problem, allocation of port and different activities of importation/exportation of goods by sea. The sample size was 40 respondents from various organizations, freights and forwarding companies, institutions and government agencies. The selection of respondents was as follows; 1 lawyer from The Law Reform Commission of Tanzania and 9 lawyers/legal officers from various law firms, 2 shipping lines from Tanzania Shipping Agents Association (TASAA), 1 respondent from Tanzania Freights Forwarders Association (TAFFA), 2 lecturers from Dar-Es-Salaam Maritime Institute (DMI) and 2 lecturers from National Institute of Transport (NIT), 15 consignors/consignees/freight and forwarding companies from Dar Es Salaam and 1 official from TPA. From Ministry of Transport, 1 official was drawn from Legal Services Unit, 1 from Transport Infrastructure Division (Ports Infrastructure Section and Policy and Planning Division), and 1 officer drawn from SUMATRA at Ports and Shipping Services Department, 2 officials from CRDB Bank (Business Banking Department) and 2 respondents from NBC Bank (International Trade Services department).

### **1. 7.4 Methods of Data Collection**

This research involved both primary and secondary methods of data collection these are field search and library search. Interview and questionnaire were employed during

primary data collection, and documentary review and electronic sources (web search) were used during secondary data collection, by doing so these enabled the researcher to extract various sources of information within and outside the country in order to supplement the information collected.

#### **1. 7.4.1 Primary Data**

The researcher conducted a field research in Dar-Es-Salaam port by visiting Tanzania Shipping Agents Association (TASAA), Tanzania Freight Forwarders Association (TAFFA), Transport Institutions namely Dar Es Salaam Maritime Institute (DMI) and National Institute of Transportation (NIT), Surface and Marine Transport Regulatory Authority (SUMATRA), Ministry of Transport (MOT), The Law Reform Commission of Tanzania (LRCT), Tanzania Ports Authority (T.P.A), However, it was necessary for the researcher to collect data from banks where bill of lading sometimes is called as collateral security under the condition of letters of credits, in this manner CRDB Bank and NBC were visited by the researcher. Therefore, in order to collect the reliable data from the field the techniques of data collection used by the researcher were interview and questionnaires.

##### **(i) Interview**

This method involves the presentation of oral-verbal stimuli and reply in terms of oral verbal responses. The researcher and respondent critically discussed the crucial issues that form the roots of the problem. This method enabled the researcher to get a higher response rate and flexibility in clarifying the questions and better verification of the topic concerned. However, this method has certain limitations, for example travelling cost and unavailability of expert respondents who are located far from the researcher. To overcome this limitation, the researcher used telephone interviews to collect accurate data from a targeted sample. The researcher purposely used interview method in order to get comprehensive information since the method is flexible and allows the researcher to keep on modifying questions where clarity is needed.

##### **(ii) Questionnaire**

This method of data collection involves a number of questions printed or typed in definite order in a form or sets of forms and the respondents have to answer the questions on their own. The researcher circulated questionnaires to respondents who have sufficient

knowledge and skills in the shipping industry in general and e-BL in particular. Therefore, the open ended questionnaires gave the respondents a wide ground to explain their views and knowledge in a critical manner and thereafter the researcher was in a position of obtaining the desirable data from the targeted sample. The researcher used this technique in order to acquire some relevant information from the respondents who were not available in their offices for a scheduled interview.

#### **1. 7.4.2 Secondary Data**

Secondary data (also known as desk data) involve the summary, collation and/or synthesis of existing research rather than primary data, this data assist the researcher to examine and scrutinize different materials and information which has been analyzed by other experts in maritime law. Significantly, these types of data were actually minimizing the costs of data collection from the sources which are located far from the researcher. Thus, hereunder are the sources of secondary data which were extracted by the researcher:

##### **(i) Documentary Review**

The researcher in conducting his research visited different libraries whereby the critical analysis of the problem was done through statutes, cases, textbooks, journal, papers and articles, reports from other related studies and other relevant materials available. The researcher visited the library of the University of Dar Es Salaam, library of the Tanzania Law Reform Commission (TLRC), library of the Tanzania National Institute of Transport (N.I.T), library of Dar-Es-Salaam Maritime Institute (D.M.I) and the library of The Open University of Tanzania (OUT).

##### **(ii) Electronic Sources**

During the period of data collection, internet search was employed by the researcher through surfing relevant websites in order to extract relevant data on maritime law like Jstor, Westlaw, LexisNexis, Butterworth, Cambridge Law Journals Online, HeinOnline, and University of Wales Online Library, online journals and articles, academia.edu, SSRN and other useful online library were visited. Concerning the quality of data from the internet, the researcher critically analyzed the extracted data in order to be accurate and reliable. However, proper citation and references were observed by the researcher in order to show the sources and reference of extracting data and their validity.

## **1.8 Data Analysis**

The researcher used qualitative and quantitative methods to analyze the data. The collected data were analyzed and interpreted in the context of the research problems advanced in the study for which the general interpretation was made. However, the unreliable data from the respondents who possess the minimum knowledge concerning this study were not included in this analysis. This was intentionally done in order to control the quality and quantity of data collected. However, the data collected from the interview were also analyzed, coded and processed in a way that the researcher converted the information in a manner that they could be counted in order to be used in testifying the hypotheses which govern this research. It is however that, the researcher used tables to present the data which were analyzed through qualitative method thereof. Moreover, graphs were used to clarify and simplify the data which were presented through tables. The researcher used graphs in order to show the quantity of responses in a precise and attractive manner.

## **1.9 Scope of the Study**

This study is about how e-BL is recognized as the transport document equivalent to paper-based bill of lading in commercial transactions in Tanzania. The researcher critically examined the existing legal framework of Tanzania starting from the basic statute which regulates the carriage of goods by sea which is The Carriage of Goods by Sea Act.<sup>63</sup> However, other relevant laws which regulate commercial transactions in Tanzania for example the Law of Contract Act, The Bills of exchange Act, The Banking and Financial Institutions Act were also examined as to whether they were designed to accommodate the use of EDI in general and e-BL particularly in commercial transactions. Moreover, the researcher made references to some relevant international instruments which regulate e-BL such as Bolero Rulebook<sup>64</sup> and the CMI Rules for Electronic Bills of Lading<sup>65</sup> and other relevant Model laws on electronic commerce were also studied.

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<sup>63</sup> [Cap. 164, R.E 2002]

<sup>64</sup> Document Retrieved on 12<sup>nd</sup> September 2012 from [http://www.bolero.net/Libraries/Articles\\_Downloads/The\\_Bolero\\_Rulebook\\_240\\_KB.sflb.ashx?download=true](http://www.bolero.net/Libraries/Articles_Downloads/The_Bolero_Rulebook_240_KB.sflb.ashx?download=true)

<sup>65</sup> 1990 Rules available at <http://www.comitemaritime.org/cmidsdocs/rulesebla.html>

## **1.10 Limitation of the Study**

During the process of data collection, the researcher experience different problems. Nevertheless, the researcher employed different techniques in order to collect the data intended. These factors limited the researcher in getting sufficient information relating to the problem at hand. Hereunder are the factors which hindered the researcher during the process of data collection:

### **1.10.1 Time and Financial Factors**

Research writing requires sufficient time and funds for its accomplishment. These involve costs and time for preparing and distributing questionnaires to the targeted respondents. However, some respondents were late to return the questionnaire in time, so this also affected the time schedule of the researcher in finalizing the work on time. Furthermore, lack of sufficient funds was as the factor which limited the researcher. Despite the fact that online books (e-books) were read, it was difficult for researcher to afford the cost of latest literatures which were also useful in this study. So this factor positively limited the researcher.

### **1.10.2 Availability of the Respondents**

Due to the nature of this topic, the researcher found some difficulties to collect sufficient data from the respondents who exactly possess sufficient knowledge on e-BL in the shipping industry. Despite the fact that purposive sampling was used to select the qualified respondents from the field, most of respondents particularly from freight and forwarding companies were not familiar with e-BL, therefore very limited data were collected by the researcher. Moreover, some respondents who were busy, they were circulated with questionnaires, but they did not respond, so this factor negatively limited the researcher to collect more sufficient data to prove the problem at hand.

## CHAPTER TWO

### CONCEPTUAL FRAMEWORK

#### 2.0 Introduction

This chapter intends to provide wide understanding concerning technical terms, principles, rules and concepts which create the basic structure of this dissertation. However, this part of the research enabling the reader to understand well about different legal and technical terms applied in a contract of carriage of goods by sea through Electronic Data Interchange (EDI), particularly e-BL as a substitute document which replicates the functions of traditional paper-based bill of lading in international trade.

#### 2.1 Bill of Lading

Is a document of carriage of goods by sea issued by the carrier or its agent to shipper acknowledging that the specified goods have been received aboard as cargo for conveyance to a named place for delivery to the consignee who is usually identified,<sup>66</sup> or is 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 the surrender of the document.<sup>67</sup> It should be noted that, the term bill of lading derived from the Latin verb “lade” which means to load the cargo onto a ship or other form of transport for transportation from loading point to be delivered to the named consignee or his agent.

As aforesaid, sometimes bill of lading involves the use of different modes of transportation (Multi-modal) from rail, road, air and sea in a single contract, it depends on the law which governing the contract.<sup>68</sup> Essentially, bill of lading contains the following essential information namely; name of the shipping company, shippers name, order and notify party, descriptions of the goods which are gross, net, tare weight and freight of the goods.<sup>69</sup> Precisely, bill of lading serves as the consignor’s receipt for the

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<sup>66</sup> Retrieved on 13<sup>th</sup> November 2012 from <http://www.dt-asia.net/en/media/BILL%20OF%20LADING%20.pdf> on 13<sup>th</sup> November 2012

<sup>67</sup> P Ramanadha Aiyar. (2005). *Concise law Dictionary* (3<sup>rd</sup> Ed.), Delhi: Wadhwa and Company Nagpur. p. 125

<sup>68</sup> Ibid

<sup>69</sup> S. 4 Article 3 (a)-(c) of the Carriage of Goods by Sea Act, [Cap. 164, R.E 2002]

goods taken aboard ship, document of title so that when it is transferred to the consignee it also gives the right to claim the goods to which it refers and lastly it serves as an evidence of contract of carriage entered between carrier and shipper.<sup>70</sup>

## 2.2 Contract of Carriage of Goods by Sea

This is an aspect of shipping law which has strategic significance because the bulk of international trade is transacted through this media. Contract of carriage by sea is an arrangement whereby a shipowner, in return for a sum of money, the freight, agree to carry goods by sea or to furnish the services of a vessel for the purpose of such carriage.<sup>71</sup> According to the Carriage of Goods by Sea Act,<sup>72</sup> contract of carriage applies only to contracts of carriage covered by a bill of lading or any similar document of title pursuant to charter-party. In this perspective, there are two types of contracts of carriage covered under this legal regime, namely, bill of lading contract and charter-party contract.<sup>73</sup> Moreover, in some jurisdiction contract of carriage of goods by sea considers other elements of modern export trade such as the burgeoning concept of multi-modalism in which the contract of carriage of goods by sea covers other means of transportation like railway, road and air in the same contract.<sup>74</sup>

Traditionally, the contract of carriage is usually a consequence of a sale contract which often details of the types of carriage to be used. The sale contract often states the type and the mode of carriage, and the manner and condition under which the cargo must be carried, depending on whether the sale contract is f.o.b, c.i.f, or on the other terms the law imposes certain obligations on the parties as to the carriage contract concluded.<sup>75</sup>

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<sup>70</sup> Gartside, L (1992). *Model Business Letters* (4<sup>th</sup> Ed). London: Pitman Publishing. p. 272

<sup>71</sup> Laryea, E (2002). *Paperless Trade: Opportunities, Challenges and Solution*. Netherlands: Kluwer Law International. pp. 51-54

<sup>72</sup>S. 4 Art. 1 of The Carriage of Goods by Sea Act, [Cap. 164, R.E. 2002] , *See also*, International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading (Hague-Visby-Rules 1968)

<sup>73</sup> It is the contract by which a ship, or some principal party thereof, is let to a merchant, for a conveyance of goods on a determined voyage to one or more places. This contract of carriage is divided into three types, namely, voyage charter-party, period charters for fixed period of time and demise charters for leisure and finance.

<sup>74</sup> Art. 1 (6) of The United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules), *See also*, Gillies, P., Moens, G. (2000). *International Trade and Business: Law, Policy and Ethics*. Australia-Cavendish Publishing Pty Ltd. p. 178

<sup>75</sup> *Ibid*

Therefore, contract of carriage of goods by sea can be multimodal or uni-modal it always depend on the legal regime which govern such contract of carriage.<sup>76</sup>

### **2.3 Data Message**

UNCITRAL Model laws defines data message as information generated, sent, received or stored by electronic, optical or similar means including, but no limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy.<sup>77</sup> It should be noted that, the idea behind the Model Laws definition of data message is to encompass all types of messages that are generated, stored or communicated in essentially paperless form. Moreover, data message should not be denied legal effect, invalid, or enforceability on the ground that it is not paper-based document as the national laws of most jurisdictions requires.<sup>78</sup>

As far as this topic is concerned, traditional bill of lading is a paper-based document and the legal regimes governing it were drafted to regulate paper based documents, so due to the scientific development particularly introduction of computer technology bill of lading suddenly changed its origin from paper to data message (e-BL), thus from above definition and detailed explanations, UNCITRAL found that e-BL<sup>79</sup> should not be denied valid on the basis of its nature, and should be enforceable as any other documents in writing except if such document does not maintains its integrity and reliability so as to be used in a subsequence reference.<sup>80</sup>

### **2.4 Electronic Bill of Lading**

This is a creation of a new species of traditional bill of lading in an electronic form whereby data is inserted in a computer and transmitted electronically using electronic messages.<sup>81</sup> This document replicates all functional features of a traditional paper-based bill of lading namely, prima facie document of title, receipts of goods and evidence of contract of carriage of goods by sea. E-BL is also contains necessary information of the

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<sup>76</sup> For example the Rotterdam Rules, 2009, allows all modes of transportation of Goods which are multi modal transport and uni-modal transport

<sup>77</sup> Art. 2 of UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996

<sup>78</sup> Ibid

<sup>79</sup> Art. 17 of the UNCITRAL Model Law of Electronic Commerce

<sup>80</sup> Ephyro Amatong Et al. *E-Commerce Act straining to fit in*. Philippine Law Journal Vol. 78. p. 336

<sup>81</sup> Op. cit Yianopolous A. N, at p. 23

cargo to be shipped by the carrier, for example 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 as well as private keys to be used in subsequent transmissions.<sup>82</sup>

Traditionally, the procedures of issuing paper-based bill of lading started when the master or agent of the carrier received the goods into his charge from the shipper, then, on demand of the shipper the carrier issued the bill of lading to the shipper,<sup>83</sup> these procedures are similar to those procedures for issuance of e-BL under the different projects of e-BL, for instance CMI Rules for Electronic Bill of Lading.<sup>84</sup> It should be borne in mind that, there is a difference between e-BL and other electronic shipping documents like seaway bill or linear bill in the aspect of performance of the functions of traditional bill of lading as developed by the customs of merchants. One of the notable different between the two is that, e-BL replicates all functions of traditional bill of lading as mentioned above, whilst the letter does not replicates all functional features, they only possess two functional features namely, receipt of goods and evidence of the contract of carriage<sup>85</sup> this is to say that they are not documents of title, therefore they are not bill of lading in legal perspective.

## **2.5 Electronic Data Interchange**

In the explanation of the working of e-BL it is necessary to briefly understand what EDI entails. EDI is electronic interchange of machine processable, structured data, which has been formatted according to agreed standards and which can be transmitted directly between different computer systems with the aid of telecommunication interfaces<sup>86</sup> or EDI as defined by the Model Law, means the electronic transfer from computer to computer of information using an agreed standard to structure the information.<sup>87</sup>

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<sup>82</sup> Rule 4 of CMI Rules for Electronic bill of Lading

<sup>83</sup> S. 4 Art. III (7) of the Carriage of Goods by Sea Act, [Cap. 164, R.E 2002]

<sup>84</sup> Rule (c) of the CMI Rules for Electronic Bill of Lading

<sup>85</sup> Force, R., Yiannopoulos, A.N., Davies. M. (2002). *Admiralty and Maritime Law: Practitioners Edition Volume 1*. USA-Beardbooks. pp 17- 19

<sup>86</sup> Eiselen G.T.S .(1995). *The Electronic Data Interchange Agreement*. South African Mercantile Law Journal 7. Cape Town: Juta Law. pp. 1 -18

<sup>87</sup> UNCITRAL Model Law on Electronic Commerce with guide to enactment 1996 with additional Article 5 bis as adopted in 1998, Article 2 (b). For more definitions of EDI, *See* National Officers of Global International Trade and Business Finance. (2000). *Finance of International Trade* (9<sup>th</sup> Ed.). National Australia Bank Limited. p. 83

However, in the working of EDI, a message is sent from one computer to another via a connection, usually a telephone line. In order for EDI to function, a combination of technology and management recourses is necessary to ensure that the data is transmitted correctly and accurately between computers.<sup>88</sup> In this regards, it is however very important to makes clear distinction between EDI and electronic commerce. Electronic commerce encompasses all aspects of electronic business exchange,<sup>89</sup> whilst, EDI encompasses the exchange of business information in a standardized electronic form. Standard form defines things like the layout of information of invoice or purchase order.<sup>90</sup>

## 2.6 Electronic Signature

Different attempts have been made to define “electronic signature” in legal perspective, consequently, it appears that it is an open ended definition (not uniformly defined) and does not promote any specific technology.<sup>91</sup> Professor Indira Carr studies found that, electronic signature could be a digital signature, a digitized image of a handwritten signature or based on biometrics such as a fingerprint or iris scan,<sup>92</sup> or an electronic signature is any electronic means that indicates either that a person adopts the contents of an electronic message, or more broadly that the person who claims to have written a message is the one who wrote it and that the message received is the one that was sent the message.<sup>93</sup>

However, UNCITRAL works which followed a “functional equivalence” approach for formulating both model laws for electronic commerce and electronic signature defines electronic signature as, data in electronic form in, affixed to or logically associated with, a data message, which may be used to identify the signatory in relation to the data message and to indicate the signatory’s approval of the information contained in the data

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<sup>88</sup> Gehrke F. (2001) *New Attempts at Electronic Documentation in Transport Bolero: The end of the experiment, the beginning of the future?* Unpublished Masters Dissertation, University of Cape Town, p. 25

<sup>89</sup> Sheldon T. (1999). *EDI (Electronic Data Interchange)*. Retrieved from <http://www.linktionary.com/e/edi.html> on 23<sup>rd</sup> January 2013, see also, Indira Carr. (2010). *International Trade Law* (4<sup>th</sup> Ed.) London-New York Routledge-Cavendish. Pp. 197-205

<sup>90</sup> Ibid

<sup>91</sup> Carr, I (2010). *International Trade Law*. (4<sup>th</sup> Ed.) London-New York Routledge-Cavendish. p. 132

<sup>92</sup> Ibid

<sup>93</sup> Retrieved on 17th November 2013 from [http://en.wikipedia.org/wiki/electronic\\_signature](http://en.wikipedia.org/wiki/electronic_signature)

message.<sup>94</sup> It is however that, electronic signature has the same legal consequence as manual signature for example, involvement of that person in the act of signing, authentication, identification and the intention of the signatory in the particular contract.<sup>95</sup>

## 2.7 Functional Equivalent

This approach adopted by UNCITRAL working group project in mid 1996, aims to create more secure legal environment for what has become known as “electronic commerce” by drafting Model Laws on Electronic Commerce and Electronic Signature.<sup>96</sup> According to UNCITRAL, “functional equivalent approach” is based on an analysis of the essential purpose and function of a traditional paper-based requirement with a view to determining how those purposes or functions could be fulfilled through electronic-commerce techniques.<sup>97</sup> However, this approach involves the determination of the criteria which the equivalent electronic communication must meet in order to be given the same legal recognition as the corresponding paper-based document enjoys, where both the paper-based document and the electronic communication are performing the same function.<sup>98</sup>

Essentially, this approach intends to remove certain legal impediments which facing the recognition of electronic documents in many jurisdictions. As the UNCITRAL founded that the requirements of “signature”, “originality” and “writing” in national laws impedes the development of e-commerce particularly the recognition of e-BL especially in international shipping trade (*these requirements will discussed on the next chapter*). Therefore, under this approach of functional equivalent, the Model Laws extends the scope of these notions in order to create an environment under which electronic documents would be treated the same as traditional paper-based documents<sup>99</sup> for example admissibility in evidence and recognition of electronic signature.

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<sup>94</sup> UNCITRAL Model Law on Electronic Signatures with Guide to Enactment 2001

<sup>95</sup> Ibid

<sup>96</sup> See, <http://www.uncitral.org/>

<sup>97</sup> Pistorius, T.(2006). *Developing Countries and Copyright in the Information Age - The Functional Equivalent Implementation of the WCT* Potchefstroom Electronic Law Journal [2006] PER 11 Retrieved 15<sup>th</sup> December 2012 from <http://www.saflii.org/za/journals/PER/2006/11.html>

<sup>98</sup> Ibid

<sup>99</sup> UNCITRAL, Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce (1996), Paragraph 15 Retrieved from <http://www.uncitral.org> on 17<sup>th</sup> December 2012

## 2.8 Private Key

As far as the meaning and legal consequences of handwritten signature in a traditional bill of lading are concerned, the private key (*herein after referred as PK*) is the form of electronic signature which plays the roles of manual signature in an electronic version of bill of lading to replicates the negotiability function of paper-based bill of lading in a contract of carriage of goods by sea covered by e-BL.<sup>100</sup> CMI Rules for Electronic Bill of Lading defines PK as any technically appropriate form, such as a combination of numbers and/or letters, which the parties may agree for securing the authenticity and integrity of a Transmission.<sup>101</sup> Purposely, PK under CMI Rules for Electronic Bill of Lading has the same effect as the transfer of rights under a paper-based bill of lading. Therefore, the PK replaces paper bill of lading to be transferred.<sup>102</sup>

With paper bill of lading the holder is the one with original bill of lading (or the set), in e-BL the holder has unique PK much like a PIN number used in an automatic teller machine (ATM) but for the use with only one transaction.<sup>103</sup> As aforementioned, the PK replicates the negotiability function of traditional bill of lading in order to transfer the rights of the goods from the holder in possession of the document to the subsequent holders. Therefore, this is to say that the underlying objective of PK according to CMI Rules for Electronic Bill of Lading is to attain the transfer of the right of control and such transfer shall have the same effect as the transfer of such right under the traditional paper-based bills of lading.<sup>104</sup>

## 2.9 Conclusion

This chapter has discussed the concepts which have close bearing with the study in hand. Thus, the readers would be in a position to have a positive understanding concerning technical and legal terms relating to e-BL. However, terms and concepts such as e-BL, data message, functional equivalent, electronic signature, private key, electronic data interchange and other important have been well defined and explained in this chapter in

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<sup>100</sup> Roger Jones et al. (2000). *International Trade and Business Law Annual (Itbla)*, Volume 5. London: Cavendish Publishing Pty Limited. pp. 173-176

<sup>101</sup> Rule 2 (f) of CMI Rules for Electronic Bill of Lading

<sup>102</sup> Ibid

<sup>103</sup> Rule 8 (a) of the CMI Rules for Electronic Bill of Lading

<sup>104</sup> Yiannopoulos A. N (Ed.). (1995). *Ocean bills of lading: Traditional forms, substitutes and EDI systems*. XIV<sup>th</sup> International Congress of comparative law, Netherland: Kluwer Law International. pp. 44-46

order to place the reader in a position to have sufficient knowledge and understanding about e-BL in the next chapters of this research.

**CHAPTER THREE**  
**A CRITICAL ANALYSIS OF THE LEGAL FRAMEWORK ON THE**  
**CONTRACT OF CARRIAGE OF GOODS BY SEA**

**3.0 Introduction**

In any shipping state there must be specific laws which govern all activities concerning the carriage of goods by sea. Noted, the contract of carriage by sea, involves a series of documents which should be regulated by the law, among them is a bill of lading. Technological advancement in the shipping industry has brought some effect in shipping practices particularly in bill of lading, which leads to the advent of e-BL. An important issue to consider is whether the existing legal framework is effective in accommodating paperless transport documents? Thus, this chapter makes a critical analysis of the legal framework as to whether it recognizes e-BL as a transport document equivalent to traditional bill of lading in shipping practice. Essentially, this chapter is a cornerstone of the basic understanding of the legal issues of e-BL as an alternative document to paper-based bill of lading in commercial transactions in Tanzania.

**3.1 The Legal Regime Governing Carriage of Goods by Sea**

In Tanzania, carriage of goods by sea is governed by the Carriage of Goods by Sea Act.<sup>105</sup> This Act was enacted in 1927<sup>106</sup>. The Act adopted the Hague Rules<sup>107</sup> by incorporating it in its schedule. The Hague Rules have been further developed by the Hague-Visby Rules and Hamburg Rules, but neither the Hague-Visby Rules nor the Hamburg Rules have been domesticated in Tanzania. The Carriage of Goods by Sea Act, 1927 was specifically enacted to regulate the contract of carriage of goods by sea between shipper and carrier for the shipment of goods. In this regard, Tanzania has only one legal regime which governs the contract of carriage of goods by sea.

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<sup>105</sup> [Cap. 164, R.E. 2002]

<sup>106</sup> Retrieved on 17<sup>th</sup> November 2013 from <http://www.imli.org/directories/united-republic-tanzania>

<sup>107</sup> International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading, 1924

## **3.2 The Salient Features of the Carriage of Goods by Sea Act, Cap. 164**

### **3.2.1 Scope of Carriage of Goods by Sea Act**

The Carriage of Goods by Sea Act carries a total of 7 sections including the Rules in the schedule as they have been incorporated from The Hague Rules.<sup>108</sup> Therefore, the Hague Rules are subject to the provisions of the Carriage of Goods by Sea Act, they have the force of law and apply in respect of the carriage of goods by sea in ships carrying the goods from any port in the United Republic of Tanzania to any other ports whether in or outside the United Republic.<sup>109</sup> However, the provision of S. 4 of the Act provides that any document of title or bill of lading issued in the United Republic of Tanzania shall be subject to the Hague Rules.

### **3.2.2 Incorporated with Hague Rules, 1924**

The schedule as incorporated from The Hague Rules has 9 Articles which contain the rules which regulate the relationship between carriers and shippers for the contracts of carriage of goods by sea. Art. I of the Rules provides for the definitions of the terms used in the rules including contract of carriage, carrier, carriage of goods and the coverage of goods carried aboard. Art. II provides for the risks to be undertaken by the carrier in relation to the loading, handling, stowage, carriage, custody, care and discharge of the goods which shall be subject to the responsibilities and liabilities and entitled to the rights and immunities as provided therein. Art. IV provides for a corresponding maximum of contractual defences and exceptions available to the carrier. Art III (8) prevents contracting out by providing that any clause which attempts to go below the minimum duties or the maximum defences set out in the Rules should be “null and void and of no effect”.

### **3.2.3 The Act Applies to Paper-Based Transport Documents**

Under the Carriage of Goods by Sea Act, there is no specific provision which expressly defines the term bill of lading, except “the contract of carriage”. The contract of carriage as defined under this legal regime means the contract which is evidenced by the bill of lading or similar document of title or any document issued pursuant to charter-party, this

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<sup>108</sup> International Convention for the Unification of Certain Rules of Law Relating to bill of Lading, 1924 (Hague Rules)

<sup>109</sup> S. 2 of the Carriage of Goods by Sea Act, [Cap. 164, R.E 2002]

is to say that, this Act applies to the following documents namely; traditional bill of lading or any similar document issued under or pursuant to a charter-party and any documents of title capable of transfer either by endorsement or, as a bearer bill, by delivery without endorsement.<sup>110</sup>

In this regards, this Act applies to those documents with three essential features of traditional bill of lading. This is to say that, the Seaways bills are not considered to be governed by The Hague Rules, the reasoning underpinning this position lies in the definition of “the contract of carriage”<sup>111</sup> as provided above. Moreover, sea waybill is, in the opinion of most maritime jurists, not a “bill of lading” or a “similar document of title”. Furthermore, this Act does not apply to any electronic documents including e-BL, this is due to the fact that, the Act still imposes the same requirements of paper-based documents for instance manual signature and original.

### **3.3 Legal Requirements for E-BL**

Before looking at how to replace a paper bill of lading with an electronic document it is first necessary to look at what is being replaced. Traditionally, paper-based bill of lading performs its functions from the realm of contract law and property law, namely; receipts of goods shipped, evidence of contract and document of title for the goods shipped.<sup>112</sup> The task is therefore to replace the physical written document that performs various legal functions to an electronic environment. In replacing these functions, e-BL must address the problems highlighted above in the use of the traditional bill, without creating too many new problems.<sup>113</sup>

The legal problems involved in implementing e-BL on a global basis become apparent when viewed against the relevant statutory requirements imposed by the various jurisdictions including Tanzania.<sup>114</sup> E-BL has to meet certain statutory and formal requirements before they become legally enforceable. Hereunder, are the lacunas or legal uncertainties of the legal framework which prevents e-BL from being recognized as a

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<sup>110</sup> S. 4 Art. I and S. 4 Article III (3) (a)-(c)

<sup>111</sup> S. 4 Art. 1 of the Carriage of Goods by Sea Act, [Cap. 164, R.E 2002]

<sup>112</sup> W.H. van Boom, (1997), *Certain legal aspects of electronic bills of lading*, European Transport Law (ETL), XXXII/1, pp. 9-24

<sup>113</sup> Ibid

<sup>114</sup> UNCTAD, *The use of transport documents in international trade*, (UNCTAD/SDTE/TLB/2003/3), p. 4 Available at [http://unctad.org/en/Docs/sdte1b20033\\_en.pdf](http://unctad.org/en/Docs/sdte1b20033_en.pdf)

substitute document equivalent to paper-based bill of lading in commercial transactions in Tanzania.

### 3.3.1 The Requirement for Originality/Document

The legal barrier toward the recognition of the e-BL is whether it can be regarded as a “document”. The Interpretation of Laws Act<sup>115</sup> of Tanzania defines document as; “...any publication and any matter written, expressed, or described upon any substance by means of letters, figures, or marks, or by more than one of those means, which is intended to be used or may be used for the purpose of recording that matter”.<sup>116</sup> Therefore, e-BL is paperless unlike other paper documents, for instance traditional bill of lading. Thus, this provision suggests that e-BL can not be included in the meaning of the word “document”. However, if a document is required to be written as that provision states, such an e-BL is not a document by the meaning of this provision. Therefore, this provision excludes e-BL from being regarded as the document hence the act prevents e-BL from being recognized as the similar document to paper-based bill of lading in commercial transactions in Tanzania.

Moreover, the provision of S. 4 Article III (7) of the Carriage of Goods by Sea Act, allows the shipper to demand a “shipped bill of lading” for the goods received by the carrier, master or agent of the carrier, so here the presumption is paper document. As far as this provision is regards, it appears difficult for e-BL to be presented, since this provision has been structured for presentation of paper-based bill of lading rather than e-documents.

Furthermore, Rules relating to the bill of lading requires at the port of destination the consignee should present the “original” copy of the traditional paper bill of lading in order to deliver the consignments,<sup>117</sup> for example, in the case of **The Stettin**,<sup>118</sup> the master delivered the goods at the port of discharge to the consignee without the production of the bill of lading. It was held that, “...according to English law and the English mode of conducting business, a shipowner is not entitled to deliver goods to the

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<sup>115</sup> [Cap. 1, R.E 2002]

<sup>116</sup> S. 4 of The Interpretation of Laws Act , [Cap. 1, R.E 2002]

<sup>117</sup> Glyn Mills Currie & Co v East and West India Dock Co. [1882] 7 App Cas 591, See also *The Stettin* [1889] 14 PD 142

<sup>118</sup> [1889] 14 PD 142

consignee without the production of the bill of lading”. As far as the Carriage of Goods by Sea Act is concerned, if this rule applies *mutatis mutandis* to e-BL as a document of carriage of goods by sea, it could be difficult to deliver the consignments, unless straight consigned bill has been issued<sup>119</sup> or the law expressly recognizes the use of e-BL.

Furthermore, if a bill of lading is called under a documentary letter of credit the presumption is a paper-based document that will be presented. However, with a growing number of documents being presented electronically the ICC has issued a supplement to cover electronic documents, which are Incoterms 1990 and e-UCP. But, this is considered not a solution particularly in Tanzania; still the businesses in maritime industry are reluctant to accept the e-BL because the document cannot be physically transferred like paper-based bill of lading. Therefore, this suggests that, businesses need to be assured of the originality of the message, that there is only one such message and that they “hold” it to the exclusion of all others.

However, there have been some efforts attempted by the international communities so that to overcome the existing legal uncertainties which prevents the recognition of e-documents in international trade. For example, the UNCITRAL Model law has the provision which expressly gives electronic documents the same legal status as paper documents. Art. 8<sup>120</sup> provides that where the law requires information to be presented or retained in its original form, that requirement is met by a data message.<sup>121</sup> Therefore, this provision is very important since it strives to remove the legal barrier which prevents the recognition of data messages in commercial transactions.

Therefore, in the light of the aforementioned provisions, it is evident that the legal framework of Tanzania imposes the requirement that the document should be “original” in order to be recognized and accepted. In this regards, since e-BL is a data message, therefore it would be difficult for e-BL to be regarded as equivalent to paper-based bill of

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<sup>119</sup> The *Rafaela S* [2003] EWCA Civ 556; [2003] 2 Lloyd’s Rep. 113

<sup>120</sup> UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996 with additional Article 5 *bis* as adopted in 1998

<sup>121</sup> According to Article 2 of UNCITRAL Model Law on Electronic Commerce “Data message” means information generated, sent, received or stored by electronic, optical or similar means including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy

lading under the provisions of the Carriage of Goods by Sea Act,<sup>122</sup> therefore this suggests that this requirement prevents e-BL from being recognized as a valid transport document in commercial transactions in Tanzania.

### 3.3.2 Requirement of Signature

The most common form of authentication required by domestic and international law is a manual signature. The function of signature is very significant not only because it authenticates the parties to a contract but also evidences an intention to be legally bound.<sup>123</sup> The signature is also vital important as far as bills of lading are concerned. The master of the ship which carries the goods acting on behalf of the carrier acknowledges the goods have been loaded in good condition and order by signing the bill of lading.<sup>124</sup>

It is however noted that, by the custom of merchants the goods in transit can be re-sold many times only if the negotiable paper-based bill of lading has been used in transporting the goods. The rules require a negotiable bill of lading to be signed by the holder in order to transfer the title to subsequent holder thereto. These procedures of endorsing traditional paper-based bill of lading should also be applied to e-BL where the parties opt to use such document.<sup>125</sup> In this regards, the issue here is, whether electronic signature used in e-BL is recognized as a manual signature in our legal framework?

The fact is, neither the Carriage of Goods by Sea Act<sup>126</sup> nor the Hague Rules recognizes e-signature as equivalent to manual signature, also the entire Act has not even made any reference to electronic signature as equivalent to manual signature; this is due to the fact that, this Act was drafted when the use of EDI, particularly e-BL was not even contemplated to replicate paper documents in shipping practice.

Furthermore, the word “signature” appears to be restricted by the courts to manual signatures. Consequently, it is certain that the courts in Tanzania will not include an

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<sup>122</sup> [Cap. 164, R.E 2002]

<sup>123</sup> Livermore J et al, (1998). *Electronic bills of lading and functional equivalence*. (2) The Journal of Information, Law and Technology (JILT), pp 6, Retrieved on 6<sup>th</sup> November 2012 from [http://elj.warwick.ac.uk/jilt/ecom/98\\_2liv/](http://elj.warwick.ac.uk/jilt/ecom/98_2liv/)

<sup>124</sup> S. 4 Art. III (7) of the Carriage of Goods by Sea Act

<sup>125</sup> Rule 4 V (b) of the CMI Rules for Electronic Bill of Lading, Also Rule 1.1(3), (43), (64) and 3.4 of the Bolero Rulebook for Electronic Bill of Lading

<sup>126</sup> [Cap. 164, R.E 2002]

electronic form of authentication as a “signature” therefore this legal uncertainty could only be resolved by legislation.

A move toward electronic signature and authentication can be seen in the Hamburg Rules<sup>127</sup> which state that, “Signature on the bill of lading may be in handwriting...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”. This also can be seen in the Rotterdam Rules, which expressly recognize the use of e-BL as the transport document equivalent to paper bill of lading, where it defines a signature<sup>128</sup> as, “an electronic transport record shall include the electronic signature of the carrier or a person acting on its behalf... electronic signature shall identify the signatory in relation to the electronic transport record and indicate the carrier’s authorization of the electronic transport record”.

Also, the CMI Rules explicitly provides appropriate solutions the same legal validity as a traditional signature and allows the parties to agree on specific means. The rules expressly provides any national or local law, custom or practice requiring the contract of carriage to be evidenced in writing and signed, is satisfied by the transmitted and confirmed electronic data residing on computer data storage media displayable in human language on a video screen or as printed out by a computer. Thus, the intention of this provision is to remove the requirement of manual signature when mandatory rules require.

### **3.3.3 Legal Recognition and Evidential Value of E-BL**

Another legal issue concerning e-BL is admissibility as evidence in court as long as they constitute electronic data messages.<sup>129</sup> This obstacle arises due to the fact that most jurisdictions when dealing with the admissibility of evidence, they assume that this evidence is based on paper documentation.<sup>130</sup> Moreover, the Rule against Hearsay and the best evidence rule in common law countries, are hindering the legal recognition and

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<sup>127</sup> Article 14 (3) of the Hamburg Rules

<sup>128</sup> Article 38 of Rotterdam Rules

<sup>129</sup> Panagiota, K. *Electronic bills of lading: Legal obstacles and solutions*. Hertfordshire Law Journal 2(1), pp. 45-54 Retrieved On 12<sup>th</sup> December 2012 from

[https://www.herts.ac.uk/fms/documents/schools/law/HLJ\\_V2I1\\_Panagiota.pdf](https://www.herts.ac.uk/fms/documents/schools/law/HLJ_V2I1_Panagiota.pdf)

<sup>130</sup> Wilson, J.F. (2008). *Carriage of goods by sea* (7<sup>th</sup> Ed), Pearson Education Ltd , p.166

admissibility of computer evidence. Consequently, the present legislation is not suitable to deal accurately with the admission of electronic data evidence particularly e-BL.

Traditionally, as a receipt, the traditional bill of lading evidences, amongst other things, the quantity, condition and leading marks of the goods, that is a description of what has been loaded on the ship<sup>131</sup>. E-BL is equally capable of describing the goods in the same way. The issue is, can that evidence be brought before the court, and if it can, is that evidence admissible? Before the year 2000 the best evidence rule in Tanzania prevented the admissibility of computer evidence in our court of law.<sup>132</sup> But the Electronic Evidence Amendment Act of 2007 provided provision for the reception of electronic evidence in courts of law in Tanzania.<sup>133</sup>

This section provides *inter alia* that in any criminal proceedings, information retrieved from computer systems, networks or servers; or records obtained through surveillance of means of preservation of information including facsimile machines, electronic transmission and communication facilities; the audio or video recording of acts or behaviours or conversation of persons charged, shall be admissible in evidence but, it is worthwhile to note that the wording of S. 40A indicates that the provision is limited to criminal proceedings and does not apply in civil proceedings. So, this provision is not directly clear that, it admits e-BL as the document which is equivalent to paper document as it is admissible as evidence before the court of law in Tanzania.

Essentially, the way forward to overcome this legal uncertainty concerning evidential value of electronic documents has been provided by UNCITRAL Model Law which reads as, "...in the legal proceedings the data message shall not be denied admissibility and evidential value solely because it is a data message".<sup>134</sup> However, before the admissibility of data message in legal proceedings, the message should first be recognized as the equivalent to paper documents, so the Model Law under the provision of Art. 5 expressly provided that, "...information shall not be denied legal effect, validity or enforce- ability solely on the grounds that it is in the form of a data message". As

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<sup>131</sup> S. 4 Art. III (3) (a) - (c) of The Carriage of Goods By Sea Act, [Cap. 164, R.E 2002]

<sup>132</sup> Trust Bank Ltd v. Le-Marsh Enterprises Ltd, Commercial Case No. 4 of 2000, High Court of Tanzania (Commercial Division) at Dar-Es-Salaam (Unreported Case)

<sup>133</sup> S. 40 A of The Evidence Act of 2007

<sup>134</sup> Article 9 of the UNCITRAL Model Law on Electronic Commerce

UNCITRAL's Model Law provides, it is expressly clear that, these Articles create a legal recognition and admissibility of electronic evidence as against the hearsay and the best evidence rules.

### 3.3.4 Document of Title and Negotiability of E-BL

Negotiable document of title is a key function of traditional bills of lading.<sup>135</sup> A question concerning document of title and negotiability in an e-BL context is whether negotiability and transferability of rights in goods can be accommodated electronically. Before coming into this analysis it is very crucial to understand this key function of traditional bill of lading. Traditionally, the function of negotiability was treated together with the function of a document of title. Since the case of **Rafaela S**<sup>136</sup> it is clear that these two functions have to be considered independent from one another. In this decision, the House of Lords held that a straight bill of lading qualifies as “a bill of lading or a similar document of title” in the sense of Art 1 (b) Hague-Visby Rules. A bill of lading does not have to be negotiable. Negotiability is therefore an additional function attributable to a bill of lading by the will of the parties.<sup>137</sup>

Concerning the issue of the negotiability function of e-BL, it is still controversy among trade partners intends to adopt e-BL as a substitute document to traditional bill of lading until today. But, Different attempts have been made by various projects in order to overcome this issue in hand. Essentially, one of the possible solutions of this critical matter has been made by UNCITRAL model law through its approach of *functional equivalent*; this was the result of the different recommendations on various proposals concerning the issue at hand. United States of America had the view that, what is being “transferred” is not the paper or the EDI message (that being just the medium), but the rights and/or title to the subject of the transaction.<sup>138</sup>

Therefore, negotiability of e-BL will be possible achieved, only if the trade partners lie their confidence in the process rather than doubting on the nature of the dematerialized document as to whether it would be endorsed or not. Hence, as long as the e-BL acquires

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<sup>135</sup> Carr, I. (2010), *International trade* (4<sup>th</sup> Ed).Law Routledge-Cavendish, pp. 181-182

<sup>136</sup> J I Mac William Company Inc v. Mediterranean Shipping Company SA, House of Lords Session 2004-05(2005) UKHL 11

<sup>137</sup> See, the case of Sanders Bros v Maclean &Co (1883) 11 QBD 327, CA

<sup>138</sup> Livermore J et al, Op. Cit. at p. 7

confidence to all the parties concerned, then the problem of negotiability will be overcome.<sup>139</sup> Concerning the issue of negotiability of e-BL Chandler had the views that;

*...the only limitation to EDI is a mental one. For those who can not bring themselves to abandon impressive looking pieces of paper for computer video screens or printouts, no argument can be put forward to justify negotiable transactions using EDI. For those who need or believe in EDI, they will come to realize that we put our faith not in the piece of paper, but in the process and that any process can be duplicated electronically. Thus, it is not a question of if it can be done, but when...<sup>140</sup>*

Thus, e-BL can also be transferred and negotiated as a paper bill of lading if we put our confidence in the process, but also in the reliable legal framework governing it. The next chapter of this research also critically discusses different attempts which have been made by various projects in order to overcome this aspect of negotiability of e-BL.

### **3.3.5 Contract Formation**

Among the legal issues which impede the legal recognition of e-BL are the determination of whether an offer has been properly made and accepted and that of when and where a contract is formed through the use of EDI.<sup>141</sup> Essentially, in the EDI environment businesses would set up their machines to act automatically on the receipt of data. This is technically called an automated system for EDI contracts, whereby human influence is relevant only at the first stage the first data are keyed into automated program. So, this raises the question whether these computer generated messages and responses fulfil the requirements of offer and acceptance.

Conversantly, this problem may be circumvented by the agreement of the parties that acknowledgment of an electronic message is required before the message acquires any validity. For example under the CMI Rules for Electronic Bill of Lading, Rule 4 (a) provides that, "... upon receiving the goods from the shipper, the carrier shall notify the shipper of the receipt of the goods by sending a message to the electronic address

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<sup>139</sup>Panagiota K, *Electronic bills of lading: Legal obstacles and solutions*, Hertfordshire Law Journal 2(1), 45-54, p. 46 Retrieved On 12<sup>th</sup> December 2012 from [https://www.herts.ac.uk/fms/documents/schools/law/HLJ\\_V2I1\\_Panagiota.pdf](https://www.herts.ac.uk/fms/documents/schools/law/HLJ_V2I1_Panagiota.pdf)

<sup>140</sup> Chandler, G. *Maritime electronic commerce for the 21<sup>st</sup> Century*. Paper presented to the CMI panel on EDI 10<sup>th</sup> June 1997

<sup>141</sup> Yiannopoulos, A.N (Ed). (1995). *Ocean bills of lading: Traditional forms, substitutes and EDI systems*. (XIV<sup>th</sup>) International Congress of comparative law. Netherland: Kluwer Law International, pp. 37-38

specified by the shipper.... After confirming to the carrier that he had received the receipt message, the shipper becomes the holder...”

Another issue concerning EDI messages in the formation of contracts is the determination of when and where a contract is formed. The determination of the time the contract is formed is important for fixing the time the parties become legally bound and the time the contract starts producing legal effects. The place the contract is formed has its importance in the determination of the law that governs the contract. Therefore, the interchange agreements or master agreements underlying the commercial transactions will probably set forth a choice of law provision.

On paper-based transactions, the time and place of a contract are the ones mentioned in the contract. Therefore, determining where the contract has been formed can be problematic in an electronic environment. A great issue about EDI in the formation of contracts is whether the contract will be considered formed upon the receipt of the offeree’s acceptance to the offeror or upon the transmission of acceptance from the offeree to the offeror? In fact, it is difficult to have the universal rule that would cover these circumstances of the contracts concluded by EDI.

However, most commentators agree on the reasoning of the case of **Brinkborn Ltd v Stahag Stahl GmbH**<sup>142</sup> and **Entores v Miles Far East Corporation**<sup>143</sup> that should apply “analogy” to the contracts concluded by EDI. In the EDI contracts the transmission is instantaneous, thus the principle of Entores’s case should be applied to shipping contracts concluded by EDI, and such contracts would be formed when and at the place where the offeree’s electronic message was actually communicated to the offeror.

This is also provided under the provision of Art. 14 of the UNCITRAL Model Law on Electronic Commerce which provides for the acknowledgement of the data message, in which it can be construed as acceptance of an offer for EDI contracts. Moreover, the provision of Article 15 of the UNCITRAL Model Law provides for the time and place of formation of electronic contract. Furthermore, in the circumstance when the message is unavailable for the recipient to read it. The court in the Brinkborn Ltd’s case held that, “... no universal rule can cover all such cases; they must be solved by reference to the

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<sup>142</sup> [1983] 2 AC 34, P 42 B-E

<sup>143</sup> [1955] 2QB, P 327

intentions of the parties, by sound business practice and in some cases by judgment as to where the risk should lie...”

### **3.4 Conclusion**

As pointed out earlier that legal uncertainties facing e-BL towards its legal recognition are not without remedies. As the UNCITRAL found that, it is an outmoded legal framework which impedes the implementation of the EDI (e-BL) in most jurisdictions, including Tanzania. Therefore, this chapter has provided a critical analysis of the legal framework which governs the contract of carriage of goods by sea and identified the lacunas of the legal framework which prevents the recognition of e-BL in commercial transactions in Tanzania. Moreover, in this analysis, references have been made to Model laws in order to examine to what extent the said legal barriers could be removed. Nevertheless, there are non-legal factors, which are technical factors that also contributed to make such documents unrecognized, so it is beyond the scope of this research to make analysis into them. Therefore, e-BL in Tanzania will remain unrecognized as well as unpopular unless amendments of the legal framework or enactment of new law could be considered.

## CHAPTER FOUR

### EXISTING PROJECTS FOR LEGAL SOLUTIONS ON ELECTRONIC BILL OF LADING

#### 4.0 Introduction

Apart from the extensive work of the UNCITRAL on EDI, there have also been other efforts by countries and other organizations to facilitate the use of EDI for bills of lading. An attempt was initiated by SeaDocs Registry Limited, followed by the CMI which provided a set of Rules for e-BL and currently the Bolero Project which formulated a system for the practical application of electronic messages in order to replicate the paper-based bill of lading. There are also supporting Rules of the International Chamber of Commerce (ICC) these provisions related to the use of e-BL in INCOTERMS 1999, 2000, UCP 500 and e-UCP 600. However, it is beyond the scope of this chapter to deal with all editions of INCOTERMS. So, this chapter only focuses on SeaDocs Registry Limited, CMI Rules, and the Bolero Registry and it critically examined how these projects successfully attempted to replicate paper-based bill of lading.

#### 4.1 The SeaDocs Registry

In early 1980's SeaDocs Registry Limited (SeaDocs), a London-based Delaware Corporation, was formed upon the initiative of Per Gram, then the Chairperson of the International Association of the Tanker Owners (INTERTANKO). This project was taken over by the Chase Manhattan Bank but lasted for less than one year.<sup>144</sup> The SeaDocs was the precedent of all e-BL and the first system to administer an e-BL using a central registry where original paper bills of lading were deposited.<sup>145</sup> Unlike other projects of e-BL, the main feature of SeaDocs system was the establishment of central registry of shipping document which used the bank as a central registry, SeaDocs Registry Limited.<sup>146</sup>

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<sup>144</sup> Laryea, E.T. (2002). *Paperless trade: Opportunities, challenges and solutions*, Netherland: Kluwer Law International, pp. 78-82, Retrieved from

<http://books.google.co.tz/books?id=NM1u9O59LEAC&printsec=frontcover#v=onepage&q&f=false>

<sup>145</sup> Samantha Peel, (2002). *The development of the bill of lading: Its future in the maritime industry*, Unpublished thesis for the Degree of Doctor of Philosophy (PhD), University of Plymouth -Institute of Marine Studies-Faculty of Science, p. 249

<sup>146</sup> A detailed description of the SeaDocs Systems can be found in A.B.M, Albert, *The SeaDocs Registry* (1986) 14, *International Business Lawyer*, pp. 430-31

The objective of the project was to protect the parties involved from fraudulent alterations of tanker bills of lading in the oil transport industry in the 70's and 80's. Moreover the impetus behind the registry was to solve all problems associated with the presentation of paper-based bill of lading, for example at that time there were a huge increase in the price of oil, a bill of lading covering a single cargo might be worth as much as US\$40 million, so the cost might increase when the cargo resold many times in transit.<sup>147</sup> Thus, the aforementioned problems motivated the project to be established during that time.

#### **4.1.1 Operation of the SeaDocs Registry**

The SeaDocs worked based on a central registry of shipping documents (SeaDocs Registry Limited in London). The original paper bill of lading issued by the carrier was not sent on its traditional odyssey from master to seller bank buyer etc. but was deposited with SeaDocs which acted as depository-custodian of the paper bill of lading.<sup>148</sup> This is to say that, this system was not a fully automated system since the bank communicated with users by telex after receiving the original paper bill of lading. In fact, the system was not an EDI system in the true sense of the word as communication was made by telex.<sup>149</sup>

After receiving the original paper-based bill of lading from the shipper, SeaDocs acted then as an agent on behalf of all involved parties. The transfer of the document then worked by the exchange of electronic messages coming and going to the relevant parties. The system was secured by a test key issued to the shipper when the paper bill of lading was delivered to SeaDocs for safe keeping and this was used to authenticate any transaction relating to the paper bill of lading.<sup>150</sup>

If the shipper wanted to transfer the bill of lading, he informed SeaDocs electronically and provided the consignee/endorsee with a portion of the test key. The consignee/endorsee/consignee also notified SeaDocs of its acceptance of the transfer. SeaDocs verified both messages according to the test key and the portion of the test key

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<sup>147</sup> Ibid

<sup>148</sup> Dubovec, M (2006). *The problems and possibilities for using electronic bills of lading as collateral*, Arizona Journal of International and Comparative Law Vol.23, No.2 2006, p. 449

<sup>149</sup> Chandler, G.F. (1998). *Maritime electronic commerce for the Twenty-First Century*, Tulane Maritime Law Journal, p. 468

<sup>150</sup> UNCITRAL Working Group on Electronic Data Interchange Thirtieth session Vienna, 26 February - 8 March 1996, p. 20, Retrieved on 22<sup>nd</sup> February 2013 from <http://unctad.org/en/docs/c3em12d2.en.pdf>

respectively and then effected the transfer by recording the name of the consignee/buyer in the registry as the new holder of the bill of lading. At the arrival of the goods SeaDocs had two options. It could issue an identifying code to the carrier and the actual holder of the bill of lading entitling the holder to receive and the carrier to deliver the goods or it could send the original paper bill of lading to its holder.<sup>151</sup>

#### **4.1.2 The Challenges of SeaDocs**

On its face, the SeaDocs system appeared well designed and was thought to be the solution to the problems of paper bill of lading present to multiple sales of bulk cargo. E-BL was the practical solution to the paper-based bill of lading and the SeaDocs was the answer.<sup>152</sup> While no operational difficulties were reported during the whole trial period of almost one year of the SeaDocs experiment, and while the fee per registration fluctuated between only \$ 300 - \$ 500 SeaDocs failed to attract a sufficient number of traders and financial institutions to survive<sup>153</sup>. Hereunder are the reasons which have been considered as the factors for its failure;

The SeaDocs faced the difficult to assess the risks of liability for the parties involved resulting from running such a kind of central registry, and therefore the cost of insurance, in case there would have been any available, would have been immense. The example<sup>154</sup> is given that even only one mistake in 10,000 transactions, which would have meant a very good quality control, could have created a loss of US \$ 20,000,000 or more. Therefore, this factor makes the project to incur loss hence the project was unable to meet its operating cost, so this resulted to be wound up.

The costs of US \$ 500 or more per transaction would have had to be added to the documentation costs already existing. Further there was the question; who would have paid them?<sup>155</sup> The benefit of the central registry was only marginal for the carriers and from their point of view in no way equivalent to the costs. Although the trading

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<sup>151</sup> Laryea, E.T. Op. cit, p. 79

<sup>152</sup> Ibid

<sup>153</sup> Kozolchyk, B. (1992). *Evolution and the present state of the ocean bill of lading from a banking law perspective*, Journal of Maritime Law and Commerce, Vol.23, No. 2, April, 1992, p. 228

<sup>154</sup> Chandler, G. F, Op. cit p. 468

<sup>155</sup> Delmedico, A. *EDI bills of lading: Beyond negotiability*. Hertfordshire Law Journal, 1 (1), 95-100ISSN 1479-4195 online/ISSN 1479-4209 CD-ROM 95, pp. 96-97, Retrieved on 26<sup>th</sup> June 2013 from [http://www.academia.edu/680014/EDI\\_Bills\\_of\\_Lading\\_Beyond\\_Negotiability](http://www.academia.edu/680014/EDI_Bills_of_Lading_Beyond_Negotiability)

companies would have been interested in the improved degree of security they were reluctant to pay the resulting fees too.

Another reason for the lack of success for SeaDocs was the doubtful extent of neutrality of the Chase Manhattan Bank. The major trading companies were unwilling to have all of their trade transactions, possibly along with their terms and conditions, recorded in a central registry maintained by a competitor (from the perspective of the banks involved), and possibly accessible to unscrupulous competitors or intrusive governments/tax authorities.<sup>156</sup>

Being a private registry SeaDocs was not open to interested third parties, trading partners for example, interested to know whether a certain shipment was sold, pledged or had taken place at all. Therefore the registry function of SeaDocs was considerably reduced, although, of course, the privacy of contract should have stayed respected.<sup>157</sup> Therefore, this factor considered as the reason for the demise of SeaDocs Project.

The future of the SeaDocs Schemes taught the international business community a valuable lesson unless the targeted users of trade documents support the e-BL system it will not work. The SeaDocs problems were not so much legal as they were practical. In deciding whether to adopt an electronic system, the user considers the cost advantages, the safety and confidentiality by an e-BL system to attract worldwide acceptance.

#### **4.2 The Comite Maritime International**

The Rules for Electronic Bill of Lading adopted in Paris in 1990 by the Committee Maritime International (The CMI Rules) are the most sophisticated attempt to date to regulate an “Open Ended” computerized method of issuance and negotiability of bills of lading.<sup>158</sup> Though carriers, shippers, or purchasers do not need to be members of a club and pay registration fees, they need the technology to transmit messages to each other.<sup>159</sup> This is to say that, the CMI Rules for Electronic Bill of Lading were promulgated in an attempt to address the problems encountered by the SeaDocs systems.

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<sup>156</sup> Ibid

<sup>157</sup> Kozolchyk, B. (1992). *Evolution and the present state of the ocean bill of lading from a banking law perspective*, Journal of Maritime Law and Commerce, Vol.23, No. 2, p. 229

<sup>158</sup> Idem

<sup>159</sup> Dubovec, M. (2006). *The problem and possibilities for using electronic bills of lading as collateral*, Arizona law Journal of International and comparative Law Vol.23, No. 2, p. 451

The CMI Rules are not system in themselves but a regulatory framework open for adoption by the parties (primary carrier and the shippers) who agree to use the e-BL instead of paper-based bill of lading in their commercial undertakings.<sup>160</sup> Because of their contractual nature, however, unless the participating parties specify their application in the “master” or individual agreements they have no effect. The contractual approach is consistent with the most general method of doing business with EDI.

#### **4.2.1 The Main Features for CMI Rules of Electronic Bill of Lading**

The CMI Rules are the creation of an e-BL by the carrier who also acts as an unofficial registry of negotiations.<sup>161</sup> The CMI Rules are not intended to displace substantive laws governing bills of lading, such as The Hague Rules, Hague-Visby Rules or the Hamburg Rules. They are intended to fill gaps in existing master and individual agreements and trading partner roles, and to provide norms to facilitate the enforceability of telecommunications in jurisdictions reluctant to accept such communications as binding.<sup>162</sup>

Accordingly, the CMI e-BL can be issued by as many carriers as having the necessary hardware and software, and it can be “endorsed” by as many endorsee as have the same facilities.<sup>163</sup> The device that makes such issuance, endorsement-negotiations and registration possible is the Private Key (hereinafter referred as PK). The Private Key as defined in Article 2 of the CMI Rules means “...technically appropriate form, such as a combination of numbers and/or letters, which the parties may agree for securing the authenticity and integrity of a transmission”.<sup>164</sup> The holder of the PK is the only party with the right to name a consignee or substitute a new consignee if one had been previously named. Under the CMI Rules, the PK, unlike a paper bill of lading, is unique

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<sup>160</sup> Rule 1 of the CMI Rules for Electronic Bills of Lading, 1990., *See also*, Laryea, E. T. (2002) *Paperless trade: Opportunities, challenges and solutions*, Kluwer Law International, p. 80, Retrieved from <http://books.google.co.tz/books?id=NM1u9O59LEAC&printsec=frontcover#v=onepage&q&f=false>

<sup>161</sup> Kozolchyk, Op. cit. p. 230

<sup>162</sup> Ibid

<sup>163</sup> Carr, I. (2010). *International trade law* (4<sup>th</sup> Ed.) London-New York: Routledge-Cavendish, p 201

<sup>164</sup> CMI Rules for Electronic Bills of Lading 1990, Rules available at <http://www.comitemaritime.org/cmidoocs/rulesebla.html>

to each successive holder and is not transferable, as only the carrier is authorized to issue it.<sup>165</sup>

Significantly, the feature that distinguishes the CMI model from the typical paper-based communications of the bill of lading is the fact that the conventional bill of lading passes from trader to trader, retaining its identity as a single document, and not returning to the carrier until the goods are discharged. By contrast, the CMI e-BL returns to the carrier every time it is negotiated, and effectively each successive trader is issued a new document transmitted from the ship.<sup>166</sup> In the light of these features, Zekos<sup>167</sup> noted that the CMI Rules are the most complete attempt to regulate open ended, computerized issuance and negotiation of bills of lading.

#### **4.2.2 Creation of the Electronic Bill of Lading under the CMI Rules**

As aforementioned, the CMI Rules do not make use of a central registry like SeaDocs and Bolero instead this function is fulfilled by the carrier. This is to say that, the procedures that are set out in the CMI Rules are very similar to the procedures of issuance of traditional paper-based bill of lading; this suggests that CMI maintains the traditional procedures of paper-based bill of lading. Hereunder, are summaries of straightforward procedures for the issuance of e-BL under the CMI Rules;

When the parties agree to use an e-BL under the CMI Rules, the carrier will issue to the shipper an electronic notice, called “receipt message”, upon the receipt of the goods by the carrier.<sup>168</sup> The receipt message is transmitted to the shipper’s electronic address subject to the shipper’s specification. The receipt message sent by the carrier must contain the following descriptions viz; 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

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<sup>165</sup> Dubovec, Op cit. p. 451

<sup>166</sup> Todd, P. (1994). *Dematerialization of shipping documents*, 10 J.I.B.L. Retrieved on 23<sup>rd</sup> June 2013 from <http://ourworld.compuserve.com/homepages/pntodd/intr/publins/demat.htm>

<sup>167</sup> Zekos, G.I. (1999). *EOF and the contractual role of computerized bills of lading*, Managerial Law, Vol. 141 Number 61-34, p. 21

<sup>168</sup> Rule 4 (a) of the CMI Rules for Electronic Bill of Lading

reference to the carrier's terms and conditions of carriage; and the PK to be used in subsequent Transmissions.<sup>169</sup>

One of the omissions at this stage is the date and place of shipment that is included in a paper bill of lading. By the virtue of Rule 4 (c)<sup>170</sup> provision is made for this by requiring that the receipt message be updated with these details as soon as the goods have been loaded. But the onus seems to be on the holder to demand the updating.<sup>171</sup> The effect of such update by the shipper according to Rule 4 (d), are the inclusion of description of the goods, including any reservation, the date and place of receipt, a reference to the terms of carriage and the date/place of shipment. In the light of this, e-BL shall have the same force and effect as if the receipt message was contained in a paper bill of lading. In other words, the receipt's function of the e-BL is to be no different from a paper-based bill of lading.

After the shipper confirms this message he would become the "holder" who is entitled to the right of control and transfer of the goods.<sup>172</sup> The PK would be the security code that the holder uses to instruct the carrier. It would enable a carrier to know that the message sent to him is authentic. No specific form of Key is set out in the Rules; the parties must agree a suitable Key between themselves.<sup>173</sup> The holder would have various rights over the goods such as to claim delivery of the goods from the carrier, to nominate another consignee, to transfer its rights to a third party,<sup>174</sup> to give instructions to the carrier regarding the goods.<sup>175</sup>

Under Rule 7 (b)<sup>176</sup> transfer of rights would be effected by notification of the transfer to the carrier, authenticated by the holder's PK. The carrier would confirm the notification to the holder and transmit the information from the receipt message to the proposed new

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<sup>169</sup> Rule 4 (b) (i)-(v) of the CMI Rules for Electronic Bill of Lading, This suggest that, the e-BL issued under the CMI Rules can be negotiable bill of lading

<sup>170</sup> CMI Rules for Electronic Bill of Lading

<sup>171</sup> This procedure also applies to the procedures of issuing paper based bill of lading, whereby S. 4 Art. III (7) requires the shipper to demand the shipped bill of lading after the goods have been loaded, See *also*, Carr, I (2010). *International trade law* (4<sup>th</sup> Ed.). London-New York: Routledge-Cavendish, p. 201

<sup>172</sup> Rule 4 (b)

<sup>173</sup> Rule 2 (f)

<sup>174</sup> Rule 7 (3)

<sup>175</sup> Rule 7 (4)

<sup>176</sup> CMI Rules for Electronic Bill of Lading, 1990

holder.<sup>177</sup> Upon confirmation by the new holder the carrier would cancel the old PK and issue a new one. If the proposed new holder does not confirm the carrier's notification the transfer would be ineffective and the current PK remains valid.<sup>178</sup> It should be noted that, the proposed new holder shall confirm the carrier's notification at reasonable time. The Rules remain silence to provide the limitation of time for the confirmation of receipt in this stage.

Under the CMI Rules, the receiver must confirm all communications before they can be acted upon. The PK is unique to each successive holder, it is not transferable.<sup>179</sup> The carrier would notify the holder of the delivery date and the holder would nominate a consignee to take delivery, verified by the PK. The carrier would then deliver to the consignee on the production of identity.<sup>180</sup> Rule 7 (d) would relieve the carrier of liability for misdelivery if he can show that he exercised "reasonable care" in ascertaining that the party claiming to deliver was the original consignee. However, it should be noted that, the transfer of rights as illustrated above shall have the same legal effect as the transfer of right under the traditional paper-based bill of lading.<sup>181</sup>

#### **4.2.3 The CMI Rules and the Functional Equivalent to Traditional Bill of Lading**

As far as the objectives of the CMI Rules are concerned, attempts have been made by the CMI Rules in order to ensure that the functional features of traditional paper-based bill of lading have been electronically replicated. However, it should be noted that, CMI provide the legal framework for e-BL in order to ensure e-BL is regulated by the specific Rules/laws. Hereunder are functional features of e-BL as replicated from traditional paper-based bill of lading;

##### **a) E-BL as a Receipt under the CMI Rules.**

One of the important functions of bill of lading is to act as the receipt for the goods aboard. As an important function needed to be replicated electronically, The CMI Rules for e-BL under the provision of Rule 4 (b), provides that, the receipt message shall include, the name of the shipper, the date and place of receipt of the goods, a reference to

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<sup>177</sup> Rule 7 (b)

<sup>178</sup> Rule 7 (4) (c)

<sup>179</sup> Rule 8(a)

<sup>180</sup> Rule 9 (b)

<sup>181</sup> Rule 7 (4) (d)

the carrier's terms and conditions of carriage as well as the PK. Furthermore, the Rules expressly state that, the above information shall have the same force and effect as if the receipt message was contained in a paper bill of lading.<sup>182</sup> In the light of this Rule, it is evident that the e-BL procedures developed by CMI Rules have successfully replicate the first function of paper-based bill of lading electronically. Essentially the Rules give e-BL the status of paper-based bill of lading.

**b) E-BL as an Evidence of Contract of Carriage under CMI Rules**

It is noted that the bill of lading is the prima facie evidence of the receipt by the carrier of the goods; the bill of lading evidences the landing marks for the identification of the goods, number of packages, pieces, quantity, or weight and apparent order and condition of the goods.<sup>183</sup> Likewise to e-BL under the CMI Rules which provide, the receipt message shall include the description of the goods; reference to the carrier's terms and conditions of carriage,<sup>184</sup> being, in essence, a reference to the contract of carriage. This suggests that, e-BL under the CMI Rules has successfully replicated the function of evidencing the contract of carriage as paper-based bill of lading in electronic form.<sup>185</sup>

**c) E-BL as a Document of Title under CMI Rules**

The CMI Rules are operated by the carrier issuing to the shipper an e-BL using electronic messages together with a PK, a sort of personal identification number, possession of which entitles the holder to control the goods.<sup>186</sup> The right of control can be transferred to another person after notification by the shipper to the carrier who cancels the original key and gives a new key to the new person entitled to control of the goods.<sup>187</sup> Similarly to traditional paper-based bill of lading, that the holder of the bill is the owner of the goods in transit, and that endorsement and delivery of an order bill of lading always transfers the ownership of goods at sea to the endorsee, or this only happens where the parties so intend.<sup>188</sup> However, it should be borne in mind that, e-BL under CMI Rules acquires the

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<sup>182</sup> Rule 4 (d) of the CMI Rules

<sup>183</sup> *Smith v Bedouin Steam Navigation* [1896] AC 70, See also the Case of *Attorney General of Ceylon v Scindia Steam Navigation Co Ltd* [1962] AC 60,PC

<sup>184</sup> Rule 4 (b) (iv)

<sup>185</sup> Rule 4 (d)

<sup>186</sup> Rule 7 (b)

<sup>187</sup> Rule 7 (b) (v)

<sup>188</sup> *Sunders Bros v. Maclean & Co* [188] 11 QBD 327, CA

feature of document of title and negotiability, but it place an excessive responsibility on the carrier to affect the transfer of the property embodied in e-BL.

The CMI Rules are currently a useful set of rules that establish a procedural basis for the use of e-BL. However, they are not free from shortcomings.<sup>189</sup> As already mentioned it is a contractual instrument, which does not allow the parties to discard any mandatory rules of applicable law.<sup>190</sup>

Further the carrier acts as private registry. This implies additional responsibilities and further administrative efforts on the carrier. It is questionable if the carrier is the right party to put these obligations on and it is questionable if a system, which needs the consent of the carrier for every negotiation of the goods in transit, is in the interest of all involved parties.<sup>191</sup>

Last but not least the CMI Electronic Bill of Lading is not linked to a digital signature method and is therefore not guaranteeing security and authenticity of the messages sent under this system. But, if the party agree to issue e-BL according to the CMI Rules, the system should work, be legally binding to the parties and be enforceable (provided it does comply with all mandatory rules of eventually applicable legislation).<sup>192</sup>

#### **4.3 The BOLERO Project**

The Bolero system is comprised of two distinct corporate entities, one is a BOLERO International Limited (BIL) and another is a BOLERO Association Ltd (BAL). BOLERO International was created in April 1998 under the sponsorship of SWIFT (Society for Worldwide Interbank Financial Transactions) and the TT Club (Through Transport

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<sup>189</sup> Electronic Commerce and International Transport Services Report UNCTAD secretariat 2001 TD/B/COM.3/EM.12/2 (Referred to as “UNCTAD Report TD/B/COM.3/EM.12/2”), p. 53

<sup>190</sup> Abdul Ghafur, H., Maung Sei, K. (2004). *The legal implications of electronic bills of lading: How imminent is the demise of paper documents?* The Journal of the Malaysian Bar, XXXIII No 3, p. 11, Retrieved 22<sup>nd</sup> May 2013 from

[http://www.malaysianbar.org.my/index.php?option=com\\_docman&task=doc\\_view&gid=138](http://www.malaysianbar.org.my/index.php?option=com_docman&task=doc_view&gid=138)

<sup>191</sup> Ibid

<sup>192</sup> Yiannopoulos, A.N (Ed). (1995). *Ocean bills of lading: Traditional forms, substitutes and EDI systems.* (XIV<sup>th</sup>) International Congress of comparative law. Netherland: Kluwer Law International, p. 27, Also See Rule 1 Appendix 1 of CMI

Mutual Insurance Association Ltd).<sup>193</sup> The BOLERO project constitutes one of the latest attempts to replicate the negotiable bills of lading electronically. Accordingly, BOLERO offers the shipping world the opportunity to have a completely paperless system with the attendant cost savings, speed and efficiency.<sup>194</sup>

It offers a closed EDI system therefore it could not be accessed by the public, nor was it interconnected with existing personal property registries.<sup>195</sup> Any party who wishes to trade in the electronic environment of BOLERO, including carriers, shippers, consignees, banks and other bodies connected with the shipping of goods such as port authorities, needs to become a member of the BOLERO Association. The subscribers are subject to the BOLERO Rulebook<sup>196</sup> which provides the legal framework for paperless transactions.

The BOLERO title registry plays a vital role in respect of e-BL, it is a database of information relating to bills of lading which is centrally operated. The transfer is affected by a combination of notification, confirmation and authentication through digital signatures.<sup>197</sup> The creators of BOLERO called their electronic document a “BOLERO Bill of Lading (BBL)” and not an “e-BL” because the BOLERO Bill of Lading does not fall within the classic definition of a bill of lading according to the maritime conventions and other relevant legislations.<sup>198</sup> However, some commentators have the views that, the “close-ended” system of the BOLERO make trade partners not to be attracted to this project which tries to replicate the functional features of traditional paper-based bill of lading.<sup>199</sup>

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<sup>193</sup> Zekos, G.I (2001), *Electronic bills of lading and negotiability*, The Journal of World Intellectual Property, Volume 4, Issue 6, pp. 977–1015, Available at <http://onlineibrary.wiley.com/doi/10.1111/j.1747-1796.2001.tb00145.x/abstract>

<sup>194</sup> Ibid

<sup>195</sup> Ibid

<sup>196</sup> First Edition 1999, this document is subject to revision according to the terms of applicable contracts with those to whom it is distributed. The Rulebook is accessed from [http://www.bolero.net/Libraries/Articles\\_Downloads/The\\_Bolero\\_Rulebook\\_240\\_KB.sflb.ashx?download=true](http://www.bolero.net/Libraries/Articles_Downloads/The_Bolero_Rulebook_240_KB.sflb.ashx?download=true)

<sup>197</sup> Rule 2.2.1 (1), Rule 1.1 (64) of Bolero Rulebook

<sup>198</sup> Ibid

<sup>199</sup> Carr, I. (2010). *International trade law (4<sup>th</sup> Ed.)*. London-New York:Routledge-Cavendish, p. 204, See also, Dubovec, M. (2006). *The problem and possibilities for using electronic bills of lading as collateral*, Arizona law Journal of International and comparative Law Vol.23, No. 2, pp. 452-453

Platform (BCMP) acknowledges in its efforts to replicate negotiability function of paper-based bill of lading in a creative way, using the principle of novation<sup>200</sup> and assignment as it recognizes that the BBL may not have full legal effect under the bill of lading law of most jurisdictions. The BOLERO system, thus adopts a contractual mechanism that relies on the principle of novation to transfer the contact of carriage and of attornment,<sup>201</sup> for the carrier to acknowledge it holds the goods to the holder of the transferee.<sup>202</sup>

Essentially, BOLERO performs three important roles in international trade, firstly, BOLERO operates as an electronic platform for the international community. Secondly, BOLERO operates as a trusted third part and certification authority, and thirdly, Bolero, acts as the title registry carrying out transactions involving BBLs after they are created. These three roles are essential for user trust, confidence and participation. To enhance security, message through BOLERO are encrypted for transmission, while local laws permit, confidentiality is maintained by transacting message as an attachment in an envelope.

#### **4.3.1 Procedures of Issuance of BBL under BOLERO Rulebook**

Under the BOLERO project, a carrier issuing a BBL to a shipper first transmit the message to the registry indicating that the message is meant for the shipper.<sup>203</sup> Users undertake not to challenge the validity of digitally signed messages, as these messages are taken to satisfy the writing and signature requirements under “any applicable requirement of law, contract, custom or practice”.<sup>204</sup> BOLERO Core Message receipt of the message to the carrier and checks the identifiers of the message for the authenticity (origin and integrity).<sup>205</sup>

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<sup>200</sup> Novation is a process whereby the old contract (between the carrier and the previous “holder”) is terminated and a new one, on the same terms, comes into existence between the carrier and the new holder

<sup>201</sup> Attornment has its basis in medieval land law and consists of an undertaking by the bailee of the goods (the carrier) to the new “holder” that he will deliver the goods to him, thus giving the latter constructive possession of the goods

<sup>202</sup> Laryea, E.T (2002) *Paperless Trade: Opportunities, challenges and solutions*, Kluwer Law International, p. 84, Retrieved from

<http://books.google.co.tz/books?id=NM1u9O59LEAC&printsec=frontcover#v=onepage&q&f=false>

<sup>203</sup> Rule 2.2 of the Bolero Rulebook

<sup>204</sup> Rule 2.2.2 (3) of the Bolero Rulebook, Also see the Article of Ma, Winnie (2000) *Lading without bills- How good is the Bolero bill of lading in australia?* Bond Law Review: Vol. 12: Iss. 2, Article 6, p. 215 Available at: <http://epublications.bond.edu.au/blr/vol12/iss2/6>

<sup>205</sup> Rule 2.2.1(3) of Bolero Rulebook

BCMP also check the structure of the enclosed documents to ensure that they met the specifications agreed between the parties, thereby ensuring that the recipient can process perhaps automatically, a document sent by another party.<sup>206</sup> BCMP adds its own signature and forwards the message to the shipper. The shipper then is required to acknowledge the receipt. However, if the shipper wishes to transfer the BBL<sup>207</sup> to an entity say a bank, the shipper will communicate through BCMP. Upon the receipt of transfer instructions by BCMP from shipper, BCMP check the message identification for authenticity and verifies it against its BOLERO Title Registry (BTR) records.

If the BCMP is satisfied with the authenticity of the document, it adds its own signature and forwards Shipper's message to the bank, and it register bank in the BTR as the new holder of the BBL. It should bear in mind that, this process is repeated for subsequent transfers; say from the bank to the consignee.

#### **4.3.2 How BBL Replicates Core Functional Features of Traditional Bill of Lading**

As pointed out earlier, the objectives of the BOLERO project are to ensure that it replicates the functional features of the traditional paper-based bill of lading. However, the project to some extent seems to be successful achieved its objectives, despite the fact that it faces different legal and technological challenges. Hereunder are the functional features of BBL;

##### **a) BBL as a Receipt of Goods Shipped**

Traditionally, bill of lading is a receipt for the goods shipped,<sup>208</sup> it states the condition, quality of goods loaded aboard, and the date on which the goods were loaded and it also identifies the carrying vessel as well as the port of loading and discharge.<sup>209</sup> In a BBL the documentary component lists the goods shipped in the same manner a paper bill of lading does and thereby serves as a receipt. The provision which looks similar to that of paper-based bill of lading reads, "any statement a carrier makes as to the leading marks, number, quantity, weight, or apparent order and condition of the goods in the BBL text will be binding on the carrier to the same extent and in the same circumstances as if the

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<sup>206</sup> Rule 2.2.1 of Op. Procedures of Bolero

<sup>207</sup> Rule 3.3 (1)-(2) of Bolero Rulebook, See also, Op. Procedures Rule 4.4.3

<sup>208</sup> See the case of, *The Stetting* (1889) 14 PD 142

<sup>209</sup> Simon, B. (2009). *Shipping law* (4<sup>th</sup> Ed). Routledge-Cavendish, p. 5

statement had been contained in a paper bill of lading.<sup>210</sup> However, even the BBL that is sent to the shipper or to any subsequent holder will therefore serve as the receipt for the cargo shipped.

**b) BBL as an Evidence of the Contract of Carriage**

One of the unique features of traditional bill of lading is evidencing the contract of carriage of goods between carrier and shipper. In **Sze Hai Tong Bank Ltd v Rambler Cycle Co Ltd**,<sup>211</sup> Lord Denning clearly state that, "... It is perfectly clear law that...the contract is to deliver, on production of the bill of lading, to the person entitled under the bill of lading..." In this manner, the bill of lading remains as an evidence of the cargo shipped aboard. To ensure this function being replicated electronically, Rule 3.6.1 of the Bolero Rulebook provides that, "persons entitled to delivery under a contract of carriage in respect of which a BBL has been created, delivery of the goods shall only be made by the carrier to, or to the order of, a holder-to-order or consignee holder which duly surrenders the BBL". Therefore, this provision proves the procedures for delivery of goods under the BBL are similar to that of traditional paper-based bill of lading.

**c) BBL as a Document of Title**

In the colourful words of Bowen LJ in **Sanders v Maclean**<sup>212</sup> "...bill of lading, by the law merchant, is universally recognized as its symbol and the endorsement and delivery of the bill of lading operates as a symbolic delivery of the cargo. Property in the goods passes by such endorsement and delivery of the bill of lading whenever it is the intention of the parties that the property should pass..." Likewise, by the virtue of Rule 3.5.1 of the BOLERO Rulebook proves that, the unique feature of paper-based bill of lading can also be replicated through the concept of "Novation", whereby one contract between two parties is extinguished to conclude an identical contract between one of these parties and a third party. Furthermore, the Rules have expressly provided that, the transfer of BBL can also be achieved after the creation of the transferable BBL, in this regard, the constructive possession of goods could be achieved,<sup>213</sup> and the negotiability feature could be attained thereof.

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<sup>210</sup> Rule 3.1.3 of the Bolero Rulebook

<sup>211</sup> [1959] AC 576, PC

<sup>212</sup> [1883] 11QBD 327, CA

<sup>213</sup> Rule 341(1)

#### **4.4 Limitation of BBL as a Document Equivalent to Traditional Bill of Lading**

Different, commentators have different views concerning the functional features of BBL which tries to replicate the characteristics of traditional paper-based bill of lading in commercial transactions, hereunder are some of them;

According to Dubovec<sup>214</sup> transferability of the Bolero Bill of lading could not be achieved under this system since the transfer of the bill was paperless and it was not governed by national or international legal rules that regulate the transfer of paper bills of lading. As most national laws ascribe the character of “document of title” to written documents the BBL could not be regarded as a document of title.<sup>215</sup> Conversely, BOLERO Rules have already provided a solution to this issue, whereby the parties to the contract of carriage under BBL (shipper and carrier) shall be bound by the BOLERO Rulebook,<sup>216</sup> by doing so the, parties are impliedly accepted that the receipt message shall have the same status as the traditional negotiable bill of lading.

Another issue is the acceptability of BBL by financial institutions or banks as collateral for goods it embodies. Lenders and letters of credit banks will not accept documents that do not provide them with a direct link to the goods.<sup>217</sup> Most jurisdictions require that a security interest be publicized in public registration or filing systems, enabling the records to be inspected by third parties. The BOLERO system was closed and not aligned with the existing personal property registries. As a consequence, banks financing BOLERO transactions were uncertain about the status of their rights and their priority against a local creditor or transferee who might have invariably defeated the Bolero creditor or transferee.<sup>218</sup>

Unlike other projects of e-BL for instance the SeaDocs system for electronic bill of lading, BOLERO system is “closed ended system” which restricts public to access the information. Winnie, Ma had the views that, if the system would be open to public, then it would be easier for it to become custom and practice among merchants, thereafter, the

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<sup>214</sup> Dubovec, M (2006). *The problem and possibilities for using electronic bills of lading as collateral*, Arizona law Journal of International and comparative Law Vol.23, No. 2, p. 453

<sup>215</sup> Ibid

<sup>216</sup> Rule 2.1.2 (1) of the Bolero Rulebook

<sup>217</sup> Ibid

<sup>218</sup> Symposium, Meeting of OAS-CICIP-VI Drafting Committee on Secured Transactions, 18<sup>th</sup> Arizona Journal. International & Computer Law, 311, 341 (2001)

Rulebook will be elevated from mere “private law in a closed system” to become part of the law merchant.<sup>219</sup> Furthermore, in order to speed up the documentation process (e-BL), there is no reason why the transport contract terms and the bill of lading itself may not be made known to all parties likely to be interested.<sup>220</sup> Here, the writer insisted on the importance of the system of BOLERO to be accessed open to public in order to be common to all trade partners in international trade at large.

#### **4.5 Other Attempts to Overcome EDI Problems**

##### **4.5.1 UNCITRAL Model Laws**

UNCITRAL<sup>221</sup> was established to harmonize and promote international trade. The United Nations established the Model Law on Electronic Commerce in 1996 to enhance the use of paperless communication.<sup>222</sup> Moreover, in the 2001 UNCITRAL launched the Model Law on Electronic Signature in order to increase the use of electronic authentication techniques as a substitute for manual signature and other traditional authentication procedures as required by the laws of most jurisdictions. The Model Laws would also provide a useful framework for countries seeking a framework from which to draft their own legislation.<sup>223</sup>

The objectives of the Model Law are essential to improve the efficiency in international trade. However, it facilitates the use of EDI and the related means of communication and providing equal treatment to users of paper-based documentation and to users of computer-based information.<sup>224</sup>

The UNCITRAL Model Laws relies on the “functional equivalent approach”, which is based on an analysis of the purposes and functions of the traditional paper-based requirements with a view to determining how those purposes or functions could be

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<sup>219</sup> Ma, Winnie. (2000) *Lading without bills-How good is the bolero bill of lading in Australia*, *Bond Law Review*: Vol. 12: Iss. 2, Article 6. P. 233(28), Retrieved on 17<sup>th</sup> January 2013 from <http://epublications.bond.edu.au/blr/vol12/iss2/6>

<sup>220</sup> Dubovic at p. 457

<sup>221</sup> United Nations Commission on International Trade Law

<sup>222</sup> Carr, I. (2010). *International Trade Law (4<sup>th</sup> Ed.)*. London-New York:Routledge-Cavendish, p. 208

<sup>223</sup> UNCITRAL, Guide to Enactment of the UNCITRAL Model Law on Electronic Signatures (2001) Available at

[http://www.uncitral.org/uncitral/uncitral\\_texts/electronic\\_commerce/2001Model\\_signatures.html](http://www.uncitral.org/uncitral/uncitral_texts/electronic_commerce/2001Model_signatures.html)

<sup>224</sup> Livermore J et al, (1998) *Electronic bills of lading and functional equivalence*, (2) *The Journal of Information, Law and Technology (JILT)*, p. 3 Retrieved from [http://elj.warwick.ac.uk/jilt/ecom/98\\_2liv/](http://elj.warwick.ac.uk/jilt/ecom/98_2liv/)

fulfilled through electronic commerce techniques.<sup>225</sup> Moreover, this approach, aims to create the legal environment of electronic documents to fulfil the functions of paper documents and to have the same legal recognition in commerce.<sup>226</sup> It is beyond the scope of this paper to examine critically each provision of the Model Law. However, some of the provisions will have implications for electronic commerce dealing with the carriage of goods by sea, particularly e-BL. These provisions are therefore examined briefly hereunder;

The UNCTRAL Model law addresses the legal issues related to electronic commerce in general. The model law has the total number of 17 Articles, the first part of the model law deals with electronic commerce in general, the second part of the model law was dedicated to deal with the specific area of the carriage of goods, particularly on the actions related to contract of carriage of goods and transport documents.<sup>227</sup>

Article 1 of the Model law, provides for the scope and application of the law, which reads as, “This law applies to any kind of information in the form of data message used in the context of commercial activities”. As far as e-BL is a data message, the Model law is also applied to the document where the parties agree.

Concerning the legal recognition of data message, the Model law has provisions which recognize data message as equivalent to the paper document. This provision provides data messages should not be denied valid by the parties on the ground that it is a data message. Therefore, this provision removes the legal requirement that commercial documents should be paper-based documents.<sup>228</sup>

Moreover, the Model law also has the provision which remove the requirements of “writing”. The Article reads, “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

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<sup>225</sup> Ibid (Para 16)

<sup>226</sup> Ibid

<sup>227</sup> Art. 16 & 17 of UNCITRAL Model Laws on Electronic Commerce,  
[http://www.uncitral.org/uncitral/uncitral\\_texts/electronic\\_commerce/2001Model\\_signatures.html](http://www.uncitral.org/uncitral/uncitral_texts/electronic_commerce/2001Model_signatures.html)

<sup>228</sup> Ibid. Art. 5

as to be usable for subsequent reference...”<sup>229</sup> So, this provision is also relevant towards the recognition of data message particularly e-BL.

Concerning admissibility and evidential weight of electronic message the Model law is also concerned. The UNCITRAL project also found that the laws of most jurisdictions do not admit electronic evidence. Thus, Article 9 expressly provides that, “In any legal proceedings, nothing in the application of the rules of evidence shall apply so as to deny the admissibility of a data message in evidence... on the sole ground that it is a data message”. Therefore, this provision has been structured to make e-document admissible.

It is interesting to note that, the only specific aspect of electronic commerce the UNCITRAL Model Law deals with is that of carriage of goods. This chapter has two important Articles. Article 16 deals with the actions related to the carriage of goods, it defines the scope of application for the chapter one-carriage of goods, by defining a contract of carriage of goods by a non-exclusive list of actions in connection with, or in pursuance of, a contract of carriage of goods, including but not limited to:

- (a) *(i) furnishing the marks, number, quantity or weight of goods;*  
*(ii) stating or declaring the nature or value of goods;*  
*(iii) issuing a receipt for goods;*  
*(iv) confirming that goods have been loaded;*
- (b) *(i) notifying a person of terms and conditions of the contract;*  
*(ii) giving instructions to the carrier*
- (c) *(i) claiming delivery of goods*  
*(ii) Authorizing release of goods;*  
*(iii) Giving notice of loss of, or damage to, goods;*
- (d) *Giving any other notice or statement in connection with the performance of the contract;*
- (e) *Undertaking to deliver goods to a named person or a person authorized to claim delivery;*
- (f) *Granting, acquiring, renouncing, surrendering, transferring or negotiating rights in goods;*
- (g) *Acquiring or transferring rights and obligations under the contract.*

In this list above all tripartite functions of the traditional paper-based bill of lading can be found and even if the list is found to be insufficient to cover any contract of carriage, it can be relied on the fact that it is not exclusive.

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<sup>229</sup> Ibid. Art. 6

Furthermore, the last Article of the Model law effectively deals with the transport documents. Article 17 of the Model Law anchors basic legal requirements for transferability of rights in the e-commerce environment. It enables merchants to use data messages instead of paper documents, whether there is a legal requirement for paper documents or there are legal consequences set out for not having paper documents. It is specified that in cases where there is a need to transfer a paper document in order to convey rights or obligations, the requirement is met if the right or obligation is conveyed by using data messages. However, Article 17 (3) of the Model Law establishes uniqueness and reliability of the method used as requirements to transfer rights and obligations by means of data messages.

The Model Law is not a source of law but a proposed set of regulations providing for electronic documents such as e-BL.<sup>230</sup> The Model Law does therefore not specifically provide a system for the use of e-BL, but presents a set of regulations for states to follow which can include bills of lading. Though the Model Law fails to provide the transferring process of a data message, the Model Law remain as the cornerstone of the legal framework for EDI.

#### **4.5.2 INCOTERMS**

The International Chamber of Commerce (based in Paris) has, since 1936, formulated and published its so called Incoterms an abbreviation of International Commercial Terms and which are known officially as the International Rules for the Interpretation of Trade Terms. The rules are periodically revised; changes were made in 1953, 1967, 1976, 1980, 1990 and the current version is Incoterms 2000.<sup>231</sup> It is beyond the scope of this paper to examine in details the provisions of all versions of the Incoterms. However, this paper focuses on the relevant version of Incoterms which considers the use of EDI in international sales contracts.

The Incoterms 1990 recognizes that a range of documents relevant to the performance of the contract are in practice being replaced to an increasing degree by so called Electronic Data Interchange (EDI). Accordingly, the Incoterms 1990 provide, where applicable and

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<sup>230</sup> Part 2 of the UNCITRAL Model Law on Electronic Commerce

<sup>231</sup>Peter, G., Moens, G(2000), *International trade and business: Law, policy and ethics*. Australia: Cavendish Pty Limited, p. 121

in some cases subject to agreement, that an equivalent electronic message may replace such documents as commercial invoices, documents required for customs clearance (import or export), transport documents, and (where agreed) documents which are to be tendered in proof of delivery.<sup>232</sup>

From the amendment effected in 1990, it is seen that the efforts centred on making Incoterms applicable in conjunction with an EDI system. Accordingly, provisions have emerged apropos electronics to be in conformity with legal requirements more than before with contract parties agreeing to use electronic, replacing the existing paper system.<sup>233</sup> Moreover, Incoterms 2000 have adopted the terms<sup>234</sup> to accommodate the increasing use of electronic documents in commercial transactions. So, where the parties have agreed to communicate electronically, they can agree to substitute an invoice or a bill of lading with their electronic equivalent. Thus, an important feature of Incoterms 2000 is the recognition of future developments in Electronic Data Interchange (EDI) in relation to transport documents, particularly e-BL and their related electronic documents involved in international trade.<sup>235</sup> Therefore, the aforementioned editions prove that the International Chamber of Commerce (ICC) considers the use of the EDI (e-BL) in international trade.

### 4.5.3 UNCID

In 1987 I.C.C became the first organization to harmonize EDI at international level which intended to govern the conduct of the parties engaged in the electronic exchange of information, the rules, known as Uniform Rules of Conduct for Interchange of Trade Data by Teletransmission (UNCID).<sup>236</sup> The major objectives of UNCID were to make the electronic interchange secure by ensuring that common messaging structures are used<sup>237</sup>

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<sup>232</sup> Art. 8A and 8B of the Incoterms 1990

<sup>233</sup> Ibid

<sup>234</sup> After being introduced by INCOTERMS 1990 that electronic documents should be recognized when the parties agreed so.

<sup>235</sup> UCP Article 18 and ICC Publication 560 these documents available at <http://www.iccbooks.com/Home/Home.aspx> , See also, Indira Carr, (2010). *International Trade Law* (4<sup>th</sup> Ed.). London-New York:Routledge-Cavendish. pp 32-51

<sup>236</sup> See, <http://www.unece.org/tradewelcome/areas-of-work/un-centre-for-trade-facilitation-and-e-business-unecefact/outputs/standards/unedifact/tradeedifactrules/part-2-uniform-rules-of-conduct-for-interchange-of-trade-data-by-teletransmission-uncid/part-2-uncid-chapter-1-introductory-note.html>

<sup>237</sup> Art. 4 of UNCID

and acceptable systems are in place to deal with the authentication of messages,<sup>238</sup> verification of messages and maintenance of communication logs.<sup>239</sup>

However, it should be noted that, the UNCID Rules do not have the force of law but only come into operation if the parties contractually agree to them, for example the CMI Rules for Electronic Bill of Lading expressly states that, "... when not in conflict with these Rules, the Uniform Rules of Conduct for Interchange of Trade Data by Teletransmission, 1987 (UNCID) shall govern the conduct between the parties".<sup>240</sup>

Conclusively to say that, UNCID Rules presented a major steps in the development of a legal framework for the EDI because it provides a foundation for individual trading agreements and more refined EDI Model Rules, for example many of the provisions in the UNCITRAL Model Law on Electronic Commerce are traceable to the ideas enshrined in the UNCID.

#### **4.6 Conclusion**

International efforts to replace traditional paper-based bills of lading with an EDI system still have a long way to go. Although there are a numbers of projects and rules which governs the use of e-BL in practice, there is lack of international confidence of using e-BL. Basing on selected sample projects above, these projects to some extent have successfully replicated functions of traditional paper-based bill of lading, for example, the BBL functions as a receipt, evidence of contract of carriage and also as a document of title. The crucial issue to note is, as CMI Rules and BOLERO have successfully proved to replicates the negotiability function of paper-based bill of lading electronically. This suggests that, the remaining task to do is to change the mindset of merchants to bear in mind that, e-BL is merely a medium for transfer which is also capable to perform the functions of paper bill of lading. On that basis any medium, including EDI or data messages can be used to transfer title of the goods if the parties agree and have confidence on it.

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<sup>238</sup> Art. 6 and 7

<sup>239</sup> Art. 10

<sup>240</sup> Rule 3 of the CMI Rules for Electronic Bill of Lading, *See also* A.N Yiannopoulos. (Ed). (1995). *Ocean bills of lading: Traditional forms, substitutes and EDI systems*. (XIV<sup>th</sup>) International Congress of comparative law. Kluwer Law International, p. 27, Also See Rule 1 Appendix 1 of CMI

**CHAPTER FIVE**  
**DATA ANALYSIS AND RESEARCH FINDINGS**  
**RECOGNITION OF ELECTRONIC BILL OF LADING IN COMMERCIAL**  
**TRANSACTIONS IN TANZANIA**

**5.0 Introduction**

This chapter presents the data which were collected from various respondents who have sufficient knowledge on the carriage of goods by sea in general. Part one presents the data which show the contemporary situation of using transportation documents particularly paper bill of lading and e-BL. Moreover, part two presents the relevant data concerning the use of e-BL as a transport document in shipping practice. Part three is about the legal issues of e-BL as a substitute document equivalent to paper-based bill of lading. As aforesaid, questionnaires and interview methods were used in collecting data respectively from, Tanzania Law Reform Commission (TLRC), Tanzania Shipping Agents Association (TASAA), Tanzania Freight Forwarders Association (TAFFA), Dar-Es-Salaam Maritime Institute (DMI), National Institute of Transport (NIT), Tanzania Ports Authority (TPA), Ministry of Transport (MOT), SUMATRA, CRDB Bank and NBC Bank. In this regards, the data collected from the aforementioned respondents were coded analyzed and presented in a table and described thereon in order to testify the hypotheses which guide this research in hand.

**5.1 The Use of Transportation Documents in Shipping Practice**

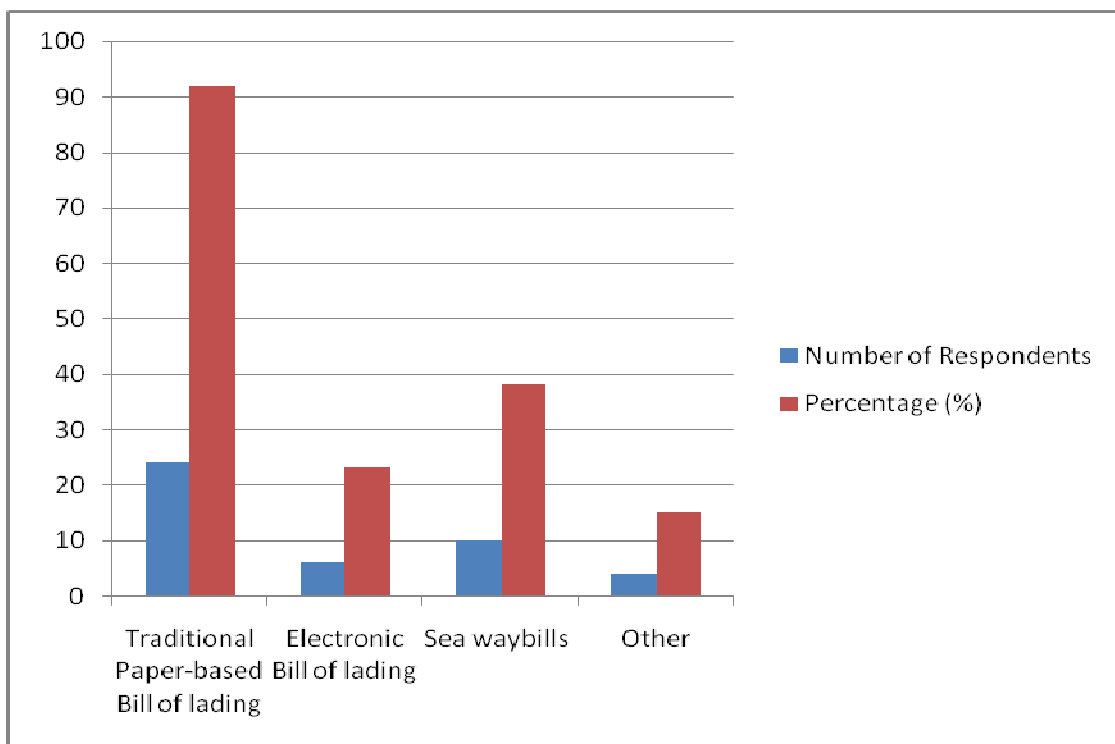
Respondents were asked to indicate which types of transport documents they mainly use, issue or require in their commercial undertakings. This was intentionally asked in order to assess the rate of using paper-based bill of lading and e-BL in commercial transactions in Tanzania. By doing so, the researcher knew which type of transport document is widely recognized over the others.

**Table 5.1: The Use of Transportation Documents in Shipping Practice (More than one answers were required)**

Type of Transport Document	Number of Respondents	Percentage (%)
Traditional Paper-based Bill of lading	24	92
Electronic Bill of lading	6	23
Sea waybills	10	38
Other	4	15

**Source:** Research findings, field data results from questionnaires, May 2013

**Figure 5.1: The Use of Transportation Documents in Shipping Practice**



**Source:** Table 5.1

The responses indicate that, the great majority (92%) of trade partners in Tanzania use, issue or require traditional paper-based bill of lading in their commercial transactions despite the fact that paper-based bill of lading has faced many problems in international trade. Whilst, the use of e-BL proved not to be common among traders in Tanzania it amounts to 23% of total respondents who responded to the questionnaires. Moreover, only 38% of the respondents use Seaway bills as a transport document in order to avoid late arrival of the document at the port of Dar-Es-Salaam, and 15% of the respondents said to use other types of transport documents.

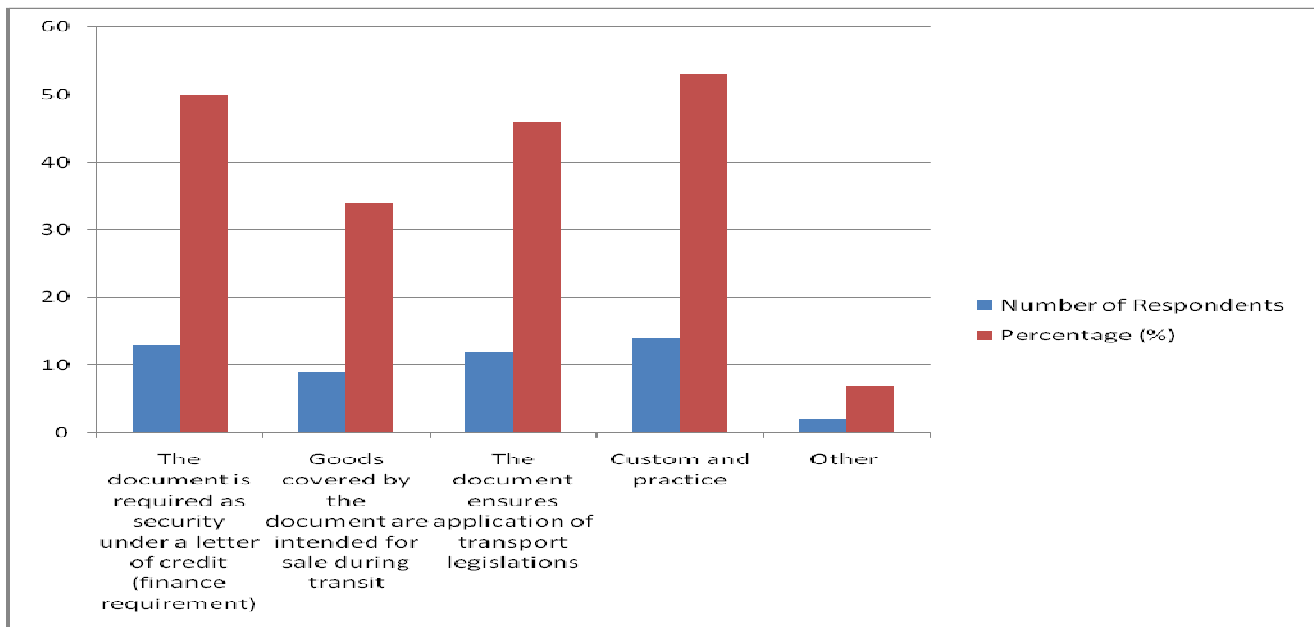
The researcher sought to find the reasons which make the trade partners using, issuing or requiring paper-based bill of lading in commercial transactions in Tanzania. This also enabled the researcher to know other reasons which makes e-BL unrecognized in commercial transactions in Tanzania, but also it enabled the researcher to determine the point of departure toward the recognition of e-BL in shipping practice in Tanzania. Table 5.2 below shows the responses of respondents on the reasons for using of paper-based bill of lading.

**Table 5.2: Reasons for Using, Issuing or Requiring Paper-Based Bill of Lading (More than One Answers were required)**

Factors Affecting the Choice of Paper-based Bill of Lading	Number of Respondents	Percentage (%)
The document is required as security under a letter of credit (finance requirement)	13	50
Goods covered by the document are intended for sale during transit	9	34
The document ensures application of transport legislations	12	46
Custom and practice	14	53
Other	2	7

**Source:** Research findings, field data results from questionnaires, May 2013

**Figure 5.2: Reasons for Using, Issuing or Requiring Paper-Based Bill of Lading (More than One Answers were Required)**



**Source:** Table 5.2

The respondents were asked to answer if paper-based bill of lading is still required in modern international trade? Most of the respondents to this question, affirmed that the use of paper-based bill of lading is still required in international trade particularly in Tanzania basing on the following arguments.

One of respondent from SUMATRA had the views that, in Tanzania the use of paper-based bill of lading is still required, although there are numbers of disadvantages arising from using paper-based bill of lading including fraud and late arrival of the documents. He added, it is very early for Tanzania to adopt e-BL in shipping practice due to the following grounds, first, not all dealers in shipping practice possess basic computer knowledge required in processing e-BL, and second there is no reliable electric power supply in Tanzania, so this will lead to a frequent communication breakdown between trade parties involved in commercial transactions by using e-BL.

Furthermore, another respondent<sup>241</sup> replied that, the use of paper-based bill of lading is still much needed due to its functions in the commercial world. However he proceeded with the argument that, most of international legal frameworks still recognize the use of paper-based bill of lading in shipping practice, therefore it could be difficult for us (Tanzania) to abandon the use of paper document without reformation of the legal framework at the international level, for instance Hague-Visby Rules.

Due to the problems of late arrival of paper-based bill of lading, fraud, and administrative cost of using paper-based bill of lading, the research sought to find the views from trade partners that, what should be done in order to overcome the aforementioned problems.

Respondents had different opinions concerning this issue; one respondent replied that, although paper-based bill of lading has several disadvantages...the government need to review the legal framework in order to recognize other types of bill of lading to come in practice. Conversely, this suggests that the legal framework of Tanzania is not adequate enough to provide the pace for the recognition of other types of transport documents, for instance electronic documents and particular e-BL.

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<sup>241</sup> Mr. Walter Mndeme, Lecturer on Transport and Logistic at NIT, Also He is an Associate at Mabita Company Limited (Freight and Forwarding Agent) Dar Es Salaam

## **5.2 The Use of Electronic Bill of Lading in Shipping Practice in Tanzania**

Respondents were asked to answer if they use e-BL as a substitute document to paper-based bill of lading in their commercial undertakings.<sup>242</sup> Only 23% of respondents replied to use e-BL as the substitute documents to paper-based bill of lading.

In an interview with one respondent<sup>243</sup> from the Nyota Tanzania Limited, he replied that, they have very limited number of customers who use e-BL in their company they only have one customer in Arusha. He added that, “...most customers prefer to use paper-based bill of lading or sometimes they use seaway bills or proforma invoice as non-negotiable bills...”

Respondents were also asked to indicate the reasons that motivated them to use, issue or require e-BL in commercial transactions.<sup>244</sup> Responding to this question, 100% of the respondents using e-BL in their commercial undertakings confirmed that they opt to use e-BL due to the speed of the document. One respondent argued that, e-BL is reducing delay of the documents at the port of destination, so this factor makes transactions to be sounder than using paper documents. However, low cost of processing e-BL is another factor which motivated 83.3% of commercial parties opting to use e-BL in their commercial transactions.

Concerning the problems of using e-BL in Tanzania,<sup>245</sup> the researcher was unable to collect sufficient information due to the limited number of respondents who use e-BL. Nevertheless, security of the documents was identified as a major problem of using e-BL compared to paper-based bill of lading. However, some of respondents replied that, sometimes it is difficult for e-BL to be accepted as collateral security for banks, because of the tendency of using paper documents as a reliable security.

Following this initial snapshot of the status quo regarding the use of e-BL, respondents were asked to indicate factors which they considered as an obstacle from using e-BL in

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<sup>242</sup> The introduction of Electronic Data Interchange (EDI) has been considered as a factor that will increase efficiency and effectiveness in international trade. In your commercial undertakings do you currently use electronic bill of lading as an alternative to paper-based bill of lading?

<sup>243</sup> An Interview with Honorary Suleiman, Finance and Import Department and at Nyota Tanzania Limited

<sup>244</sup> In your views which are the reasons that motivated you opt to use electronic bill of lading in international trade?

<sup>245</sup> From your experience subject to the use of electronic bill of lading as an alternative to paper-based bill of lading in commercial transactions, what are the problems of using such a document?

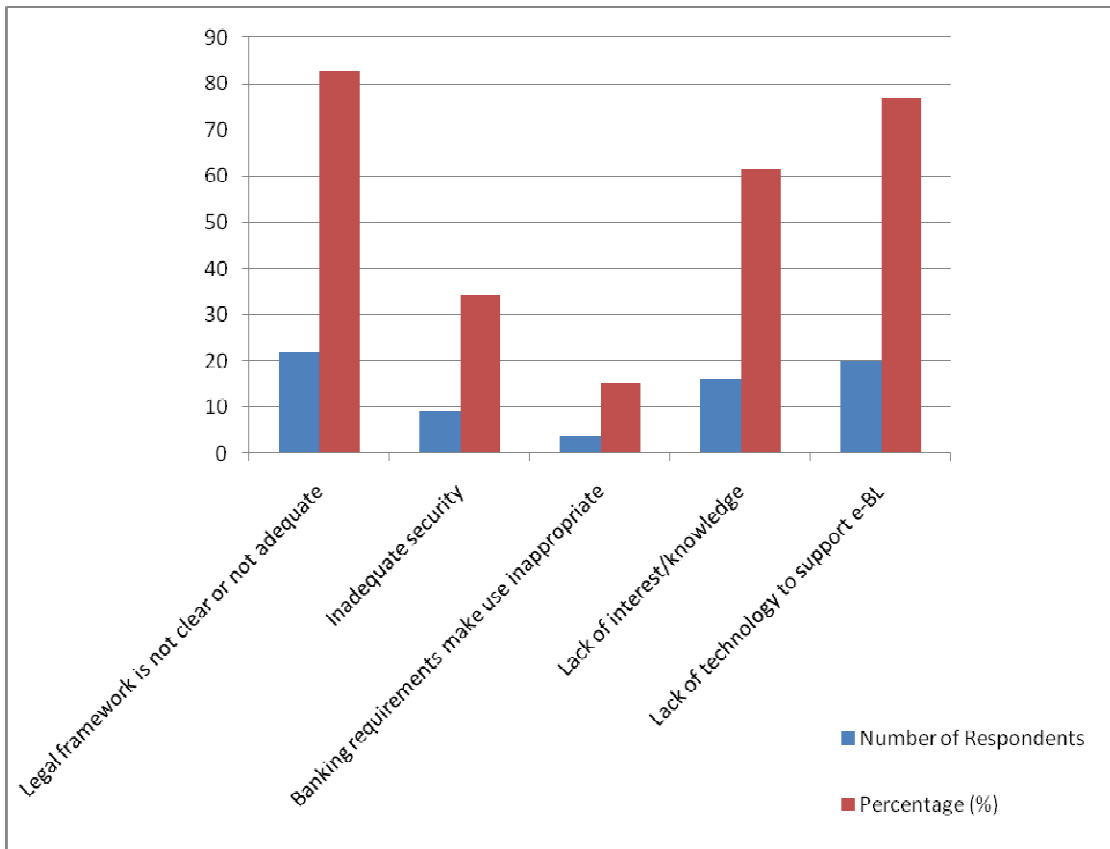
commercial transactions in Tanzania. The objective is to examine to what extent lack of a legal framework governing e-BL affects the recognition of e-BL in commercial transactions in Tanzania.

**Table 5.3: Factors Affecting the Use of Electronic Bill of Lading (More than one answer were required)**

Obstacles	Number of Respondents	Percentage (%)
The legal framework is not clear or not adequate	22	82.6
Inadequate security	9	34.4
Banking requirements make use inappropriate	4	15.3
Lack of interest/knowledge	16	61.5
Lack of technology to support e-BL	20	76.9

**Source:** Research findings, field data results from questionnaires, May 2013

**Figure 5.3 Factors Affecting the Use of Electronic Bill of Lading**



**Source:** Table 5.3

While 82.6% of commercial parties believe lack of clear and adequate legal framework is a main obstacle to the substitution of paper bill of lading with e-BL, 76.9% of the

respondents suggest that lack of technology to support e-BL is also the major obstacle of using e-BL in shipping practice in Tanzania. Also 61.5% of respondents believe that lack of interest/knowledge of using e-BL is also as an obstacle to e-BL. 34.4% significant smaller proportion of respondents also believe that electronic equivalents are not sufficiently secure, and the rest occupied by those based on the banking requirement make use inappropriate.

### **5.3 The Legal Issues of Electronic Bill of Lading**

This part is about the legal issues of e-BL where data was collected from lawyers, legal officers and maritime professionals who have knowledge concerning the rules which regulate the contract of carriage by sea. The researcher distributed ten questionnaires to the respondents from various institutions, organizations, ministries etc. Out of ten circulated questionnaires only seven questionnaires were collected back, this made the 70% of total questionnaire.

Concerning the legal framework which regulates the contract of carriage of goods by sea which is the Carriage of Goods by Sea Act., respondents were asked to answer if the legal framework is adequate enough in accommodating e-BL.

The response was 100% of respondents agree that the existing legal framework is not effective in accommodating e-BL. However, respondents supported their answers with some arguments in their questionnaires. Most of respondents replied that, the Carriage of Goods by Sea Act was drafted in an era where the uses of EDI in international trade were not in practice. Consequently, the legal regime does not recognize certain requirements for e-BL, for example, the law still requires manual signature whilst e-BL uses digital signature/private keys to perform its roles as traditional paper based bill of lading. Moreover, other respondents commented by referring to the Hague Rules

Furthermore, another respondent from R.M Attorneys had the views that, for e-BL to be recognized and implemented as a document equivalent to traditional bill of lading in commercial transactions there are two factors which should be taken into account, first, the legal framework should be compatible with the requirements of electronic documents, the law should recognize the evidential value of data message (e-BL), electronic signature and requirements of original should be removed. Second, he added that, despite

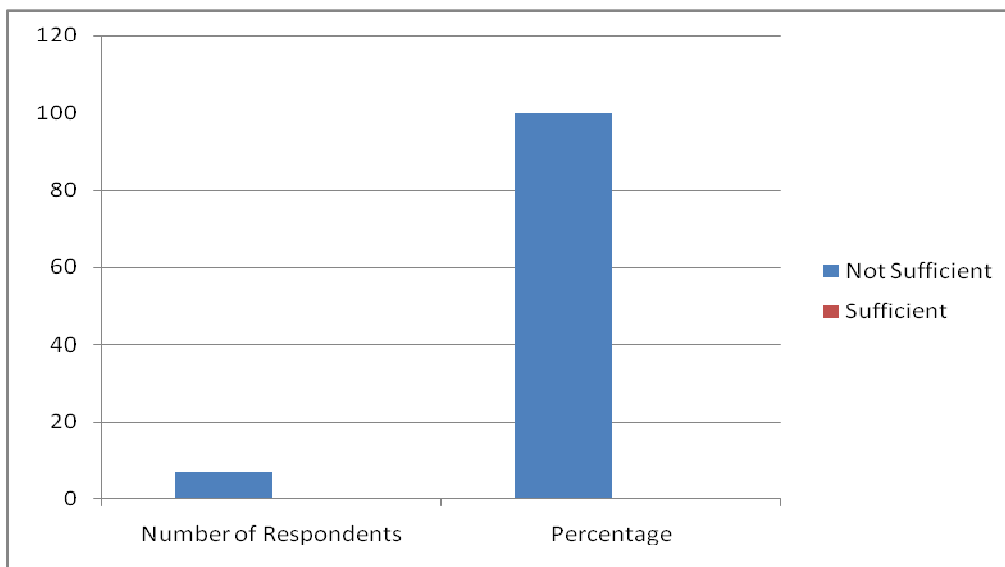
the fact that, technology is always ahead of the law, the government should also consider incorporating Rotterdam Rules as the only solution for the implementation and legal recognition of e-BL in shipping industry particularly in Tanzania. Table 5.4 bellow shows the response of the first hypothesis of this research.

**Table 5.4: Whether the legal regime regulating contract of carriage of goods by sea is not effective in accommodating e-BL**

Type of Response	Number of Respondents	Percentage
Not Sufficient	7	100
Sufficient	0	0
Total	7	100%

*Source:* Research findings, field data results from Questionnaires and Interviews, May 2013.

**Figure 5.4: Whether the legal regime regulating contract of carriage of goods by sea is not effective in accommodating e-BL**



**Source:** Table 5.4

Concerning replicating the negotiability aspect of paper-based bill of lading with e-BL, respondent from National Institute of Transport (NIT)<sup>246</sup> replied that, “...paper-based bill of lading, spends many centuries to be recognized as a negotiable instrument, despite the fact that it is technically not, thus, it is no doubt that e-BL will replicate this feature, but it

<sup>246</sup> Mr. Walter Mndeme, Lecturer on Transport and Logistic, also is an Associate of Mabita Company Limited (Freight and Forwarding Agents) -Dar Es Salaam

needs some practice in the shipping industry in order to achieve complete recognition as a document of title like paper-based bill of lading.

Furthermore, the researcher asked the respondents about the legal status of e-BL, as to whether our legal framework provides the same legal status as traditional paper-based bill of lading. 100% of the respondents agree that, the legal framework does not provide the same legal status to e-BL as paper-based bill of lading. One of the respondents<sup>247</sup> answered this question by citing the provision of S. 4 Art. 1 of the Carriage of Goods by Sea Act; he argued that, this provision was structured to cover the contract of carriage of goods evidenced by traditional paper-based bill of lading rather than e-BL. However, he added that, the entire Act needs to be revised, and that definition should be amended or extended in order to cover electronic documents like e-BL.<sup>248</sup>

Responding to the question number sixteen,<sup>249</sup> 85.7% of the respondents agree that the absence of the specific laws governing electronic transactions prevents the recognition of e-BL in Tanzania. 14.2% of the respondents did not agree with this statement basing on the argument that the only obstacle to the recognition of e-BL is negotiability aspect of the document. Further, the respondent added that, our legal framework link the right of ownership of goods to the possession of paper document, thus the enactment of specific laws governing electronic transactions is not sufficient to make e-BL recognized, the possible solution and initial step towards the recognition of e-BL is to modify the legislations dealing with the ownership of goods in a paper documents and transforming it into paperless documents, only this modification would allow e-BL to convey title of ownership of goods. Table 4.5 below represents the response of the second hypothesis of this research.

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<sup>247</sup> An Interview with Emmanuel Gideon (Advocate) , AME & Company Advocates

<sup>248</sup> For example Article 8 of the Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea which provides “Anything that is to be in or on a transport document under this Convention may be recorded in an electronic transport record, provided the issuance and subsequent use of an electronic transport record is with the consent of the carrier and the shipper...”

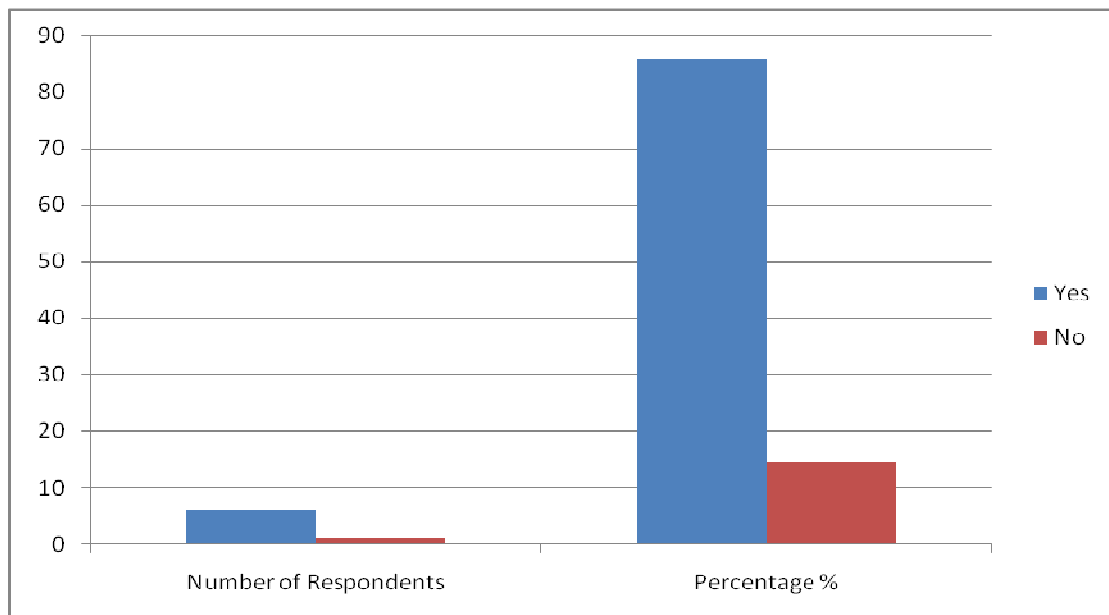
<sup>249</sup> Do you think lack of specific legal framework governing electronic transactions impedes the recognition of electronic bill of lading?

**Table 5.5: Recognition of E-BL has Failed Due to the Lack of Specific Laws Governing Electronic Transactions in Tanzania**

Type of Response	Number of Respondents	Percentage %
Yes	6	85.71
No	1	14.28
Total	7	100%

*Source:* Research findings, field data results from questionnaires and Interviews May, 2013

**Figure 5.5: Recognition of E-BL has failed due to the Lack of Specific Laws Governing Electronic Transactions in Tanzania**



*Source:* Table 5.5

However, majority of respondents responded that, before the implementation and introduction of e-BL there are several issues that should be considered, among them are enactment of electronic transactions laws are required in order to make e-BL recognized, the Carriage of Goods by Sea Act needs to be revised by incorporating international legal regime which recognizes the use of electronic transportation documents in shipping practice for example Rotterdam Rules, the Evidence Act should also be considered amended, and some of them have the view that the cybercrime laws should also be enacted, this will create confidence and security towards the use of e-BL.

#### **5.4 Conclusion**

The data presented in this chapter were collected from various reliable sources which have been identified by the researcher in chapter one. In this chapter the researcher assessed the contemporary rate of using transport documents particular paper- based bill of lading and how e-BL is recognized as the transport document equivalent to paper based bill of lading in commercial transactions in Tanzania. Questionnaires and scheduled interview methods were used to collect the data; however, after being collected the data were analyzed, coded and presented in tables and graphs. Nevertheless, the researcher has clarified the data in a simplest manner in which the reader could understand exactly what the researcher found in the field area. It is however that, the questions asked by the researcher through interview and questionnaire were not only designed to collect the data that were used to testify the hypotheses which guide this research, but also to attain the objectives which have been intended to be achieved by the researcher thereof.

## CHAPTER SIX

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 6.0 SUMMARY

This research has critically examined the legal framework of Tanzania towards the recognition of the e-BL as the substitute document equivalent to paper-based bill of lading in commercial transactions. It is however that, though the traditional paper-based bill forms an integral part of international trade for centuries, recently it failed to perform its functions efficiently as expected by commercial parties in international trade at large. Therefore the introduction of e-BL was expected as a solution to the problems brought by paper-based bill of lading, but unexpectedly, it has faced the fate for not to be recognized as a document equivalent to paper-based bill of lading in most jurisdictions including Tanzania.

Various factors have been considered as the reasons which contributed to the unsuccessfulness of e-BL both in terms of technological and legal perspectives. In this regards, the researcher intended to prove the reasons which contribute to the failure of e-BL in commercial transactions in Tanzania by conducting a research which strived in examining the legal framework which govern the contracts of carriage of goods by sea. The research was guided by the following hypotheses;

- (i) The legal regime regulating contract of carriage of goods by sea is not effective in accommodating e-BL; and*
- (ii) Recognition of e-BL has failed due to the lack of specific laws governing electronic transactions in Tanzania.*

The first hypothesis, intended to examine critically and prove how the legal regime which regulate the contract of carriage of goods by sea (The Carriage of Goods by Sea Act) is sufficient enough to accommodate the e-BL as a document equivalent to traditional paper-based bill of lading in commercial transactions. Responding to this issue, 100% of respondents representing lawyers and other professionals in maritime industry affirmed that, the carriage of goods by sea act is not effective in accommodating e-BL as a substitute document equivalent to paper-based bill of lading. The majority of respondents argued that, the convention which has been incorporated into the legal framework seems

to be the major obstacle towards the recognition of e-BL in commercial transactions in Tanzania.

Furthermore, the researcher sought to find the reasons which prevent trade partners from using e-BL as the substitute document equivalent to paper-based bill of lading in their commercial undertakings. The researcher intended to know if the legal framework is also the factor which prevents the commercial parties from using e-BL. 82 % of respondents responded that, the legal framework is not adequate to make them opt to use e-BL in commercial transactions. In this manner, this makes the total of 91% of respondents to agree that the legal framework is not adequate in accommodating e-BL as the substitute document equivalent to paper-based bill of lading and therefore it prevents e-BL from being recognized in commercial transactions in Tanzania.

It is however that, the second hypothesis proves affirmative, where 85.7% of respondents who have answered part three of the circulated questionnaires agree that, for e-BL to be successful, Tanzania needs specific laws which govern electronic transactions, by doing so, the legislation would ensure the legal recognition of electronic communication in general, but also the legal uncertainties for e-BL for example requirements of original, writing, signature, and the evidential value of data message would be solved. However, 14.2% of the respondents did not agree with this issue on the ground that, e-BL would only be recognized if the negotiability aspect of electronic documents (e-BL) would be absolutely clear among commercial parties involved in commercial transactions.

Moreover, apart from legal issues of e-BL, findings reveal that, 76.9% of commercial parties in Tanzania do not use e-BL as the transport documents in their commercial undertakings due to the lack of technological infrastructure which are necessary to support the documents. This suggests that the government should consider providing sufficient infrastructure, qualified ICT technicians in order to make e-BL implemented in Tanzania. Furthermore, lack of interest and knowledge are among the factors which constitute to 61.5% in preventing commercial parties in shipping practice from using e-BL in their commercial transactions.

## **6.1 CONCLUSION**

No doubt e-BL is not well recognized as the substitute document equivalent to traditional paper-based bill of lading in commercial transactions in Tanzania due to various reasons. Among the reasons identified by the researcher is lack of specific laws which governing electronic transactions. The existing legal framework is absolutely silent concerning the legal requirements for e-BL, for instance recognition of data message, therefore, this create some difficulties for e-BL to be regarded as the valid transport document equivalent to paper-based bill of lading in commercial transactions. In this regards, lack of sound legal framework for electronic transactions remain as the major obstacle towards the recognition of e-BL in commercial transactions in Tanzania.

Conclusively we can say that, Tanzania has many rivers to cross before recognizing and implementing the use of e-BL as the substitute document equivalent to traditional paper-based bill of lading in commercial transactions without amending or enacting an effective legal framework which governing the contract of carriage of goods by sea. And, the legal framework should be capable in accommodating the use of e-BL as a document equivalent to traditional paper-based bill of lading in shipping practice in particular and commercial transactions in general. In the light of this, the focus should be on incorporating the Rotterdam Rules, which contain specific provisions concerning the e-BL, by doing so this will perhaps give new impetus to recognize e-BL in Tanzania.

## **6.2 RECOMMENDATIONS**

This study has shown that the recognition of e-BL in commercial transactions in Tanzania has failed due to lack of specific and sound legal framework. However there are other hindering factors for e-BL. Therefore, basing on the light of the findings, literature and comments hereunder are the recommendations of this research.

### **6.2.1 Legal Recommendations**

#### **6.2.1.1 Amend the Carriage of Goods by Sea Act**

As the findings reveal, the Carriage of Goods by Sea Act is not well designed to accommodate electronic transport documents in general. In this regards, it is an undisputed fact that, the legal regime does not recognize e-BL as a document equivalent to a traditional bill of lading. Therefore, this law needs immediate amendments or enactment of new legal regimes which will be compatible with requirements of electronic

documents, for instance digital signature and recognition of the data message. However, there should be specific provisions which expressly recognize the uses of electronic bill of lading as the document equivalent to a traditional bill of lading.

#### **6.2.1.2 Incorporate Rotterdam Rules into National Legal Framework**

The Rotterdam Rules are the only a solution to the legal uncertainties of electronic transport documents in the carriage of goods in general. The incorporation of Rotterdam Rules will bring the use of e-BL into a transition period towards its legal recognition. Thus, the adoption of the Rotterdam Rules should be considered as the first step towards the electronic documentation system in shipping practice because, incorporation of the Rotterdam Rules into national legislation requires amendments or reformation of relevant laws. This includes recognition of e-signatures or digital certificates, the admissibility of electronic transactions in courts as evidence etc. By doing so, this will perhaps lead the e-BL to be recognised as a transport document equivalent to paper bill of lading in commercial transactions in Tanzania.

#### **6.2.1.3 Enact Electronic Transactions Act**

The government should consider enacting the specific law which regulate legal issues of electronic transactions in general. The legal framework should reflect the UNCITRAL's approach of *functional equivalent*, under which the legal requirements prescribing the use of paper-based documentation in commercial transactions would be removed. These requirements include the requirements of signature, writing, admissibility and evidential weight of data message, and the requirements of original. Enactment of this Act would possibly be useful in making e-BL recognised as the document equivalent to paper – based documents.

#### **6.2.1.4. Enact Electronic Signature Act**

Enactment of the legal regime for electronic signature should be positively considered toward the implementation of electronic documents in commercial transactions. For example authentication and transferability of e-BL depends on digital signature, for example BBL, the transfer of control of goods take place by the holder giving the registry an electronic instruction by using digital signature. So enactment of the new legislation for electronic signature would actually recognize e-signature as equivalent to written

signature. Therefore, the legislation would give the pace towards the recognition of e-BL, since one of the legal barriers for e-BL would be removed.

## **6.2.2 Non-Legal Recommendations**

### **6.2.2.1 Create Conducive Technological Infrastructure for EDI**

The use of e-BL requires basic technological advancement for its implementation. Thus the government should consider creating reliable technological environment to entities involving in shipping industry. The entities may have partial use of computers in their operations, but a fully integrated electronic system that connects users domestically and internationally is imperative for paperless transactions to operate. For example, internationally, there must be a system that directly or indirectly connects importers to exporters, banks, carriers and insurers; whilst, domestically, there must be a system that connects importers and exporters to their banks, freight forwarders, brokers, and government agencies such as customs, revenue and port authorities.

### **6.2.2.2 Provision of ICT Training to the Shipping Communities**

This study found that lack of knowledge and interest among commercial parties in shipping practice discourages the implementation of e-BL in Tanzania. Therefore, the government should consider providing basic ICT training to its officials in ports and customs departments in order to increase the rate of development of EDI in shipping practice. Moreover, training should also be provided to different companies dealing with clearing and forwarding, insurance, banks and etc. By doing so, this will enable commercial parties to be familiar with electronic documents in shipping practice especially e-BL.

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## APPENDIX 1

### Questionnaire

#### **Questionnaires on the Use of Transport Documents and the Recognition of Electronic Bill of Lading as a Substitute Document to Paper-Based Bill of Lading in Commercial Transactions in Tanzania**

The aim of this research questionnaire is to collect information concerning the position of Tanzania's legal frameworks towards the recognition of electronic bill of lading in commercial transactions. The information collected will not only provide useful input towards the legal reforms in Tanzania, but also the pace toward the use of EDI in maritime practice in Tanzania. I kindly appreciate your cooperation.

Please indicate which of the following most accurately describes your organization or the part of your organization that you represent.

- |                               |         |                             |         |
|-------------------------------|---------|-----------------------------|---------|
| Lawyer/Legal advisor          | (.....) | Bank/Financial Institutions | (.....) |
| Transport Provider (Carriers) | (.....) | Consignor/Consignee         | (.....) |
| Freight and Forwarding Agent  | (.....) | Maritime Professional       | (.....) |

- 1.Name.....
- 2.What is the name of your organization.....
3. For how long have you been in this position.....

N.B: Please answer Parts I and II as appropriate, except for Part III which is specifically prepared for lawyers/Legal advisors/Maritime professional.

#### **PART I: The Use of Paper-Based Transport Documents**

1. Which transport documents do you mainly use/issue/require?
  - a) Traditional paper-based bill of lading (....)
  - b) Electronic bill of lading (....)
  - c) Sea waybills (....)
  - d) Other (....)

2. Please indicate the reasons why you may use/issue/require a paper-based bill of lading?

- a) The document is required as security under a letter of credit (finance requirement) (....)
- b) Goods covered by the document are intended for sale during transit (....)
- c) The document ensures application of rules of mandatory transport legislation (....)
- d) Customs and practice (....)
- e) Other. Please explain below; (....)

.....  
.....  
.....  
.....

3. From your experience, do you think paper-based bill of lading is adequate to satisfy the commercial needs of merchants especially in this era of technological advancements in international trade?

- a) YES (.....)
- b) NO (.....)

If NO, explain why?

.....  
.....  
.....  
.....

4. To what extent is, in your view, the use of a paper-based bill of lading still required in modern international trade?

.....  
.....

.....  
.....

5. If paper-based bills of lading are not required in modern international trade due to various reasons as you mentioned above, please explain what should be done in order to overcome the aforementioned problems caused by paper-based bill of lading?

.....  
.....  
.....  
.....

**PART II: The Use of Electronic Bill of Lading in International Trade**

6. The introduction of Electronic Data Interchange (EDI) has been considered as a factor that will increase efficiency in international trade. In your commercial undertakings do you currently use electronic bill of lading as an alternative to paper-based bill of lading?

- a) YES. (.....)
- b) NO. Please answer question number 9 below (.....)

7. In your views, which are the reasons that motivated you to opt for an electronic bill of lading in international trade?

- a) Speed (.....)
- b) Efficiency (.....)
- c) Cost Effective (.....)
- d) Avoiding liability arising from late arrival of documents (.....)
- e) All (.....)

8. From your experience subject to the use of electronic bill of lading as an alternative to paper-based bill of lading in commercial transactions, what are the problems of using such a document?

.....  
.....

.....  
.....  
9. If you do not use/issue/require electronic bill of lading as an alternative to paper-based bill of lading, Please indicate why? You can choose one or more reasons

- a) Lack of legal framework governing electronic bill of lading (.....)
- b) Inadequate security (.....)
- c) Banking requirements make use inappropriate (.....)
- d) Lack of interest/knowledge (.....)
- e) Lack of technology to support electronic bill of lading (.....)

10. In your views, do you believe the transition from traditional bill of lading to electronic bill of lading will eliminate the problems associated with paper-based bill of lading?

- a) YES (.....)
- b) NO (.....)

If your answer is NO please explain why?

.....  
.....  
.....  
.....

**PART III: The Legal Issues of Electronic Bill of Lading**

11. What is an electronic bill of lading?

.....  
.....  
.....  
.....

12. Traditional paper-based bill of lading has three functional features which have been developed by the custom and usage of merchants for Centuries. Back in 1980's electronic bill of lading has been invented to replace traditional bill of lading in international trade.

From your knowledge, what are the features of electronic bill of lading?

.....  
.....  
.....  
.....

13. From your knowledge, with reference to our legal framework do you think electronic bill of lading as a substitute to paper-based bill of lading would properly replicate all functional features of traditional paper-based bill of lading?

- a) YES (.....)
- b) NO, Please explain why? (.....)

.....  
.....  
.....  
.....

14. Do you think the legal regime which regulates the contract of carriage of goods by sea in Tanzania is adequate enough to accommodate electronic bill of lading?

- a) YES (.....)
- b) NO (.....)

If your answer is NO, please explain why?

.....  
.....  
.....  
.....

15. What needs to be changed in our legal framework in order to make electronic bill of lading accepted/recognized in commercial transactions in the future?

.....  
.....  
.....  
.....  
.....

16 Do you think lack of specific laws governing electronic transactions impedes the recognition of electronic bill of lading in commercial transactions?

- a) Yes            (...)
- b) No            (...)

17. One of the unique features of paper based-bill of lading is negotiability, despite the fact that it is not a negotiable instrument in technical sense. In your knowledge, do you think it would be possible for electronic bill of lading to perform such function within our existing legal framework?

.....  
.....

18. Electronic bill of lading appears in the form of data message. With reference to our existing legal framework, do you think electronic bill of lading has the same legal status as paper-based bill of lading in commercial transaction in Tanzania?

.....  
.....  
.....  
.....

19. Please, mention the legal concerns that need to be considered before the introduction and implementation of electronic bill of lading as a substitute to traditional paper-based bill of lading in commercial transactions in Tanzania.

.....  
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.....





### APPENDIX 3

#### Specimen for Electronic Bill of Lading

Bill of Lading Program - Shipper: STARRE ENTERPRISES, INC.

File Edit Search Maintenance Reports Setup Help Shipper name: STARRE ENTERPRISES, INC.

Date: 03/01/2013 ... Carrier: PERFORMANCE FREIGHT SYSTEMS, I... PRO#: 1234567890 SCAC: 5432 Carrier #: 55883 Trailer #: ABX12 Seal #: 55-884 BOL #: 1000

Consigned to: STARRE ... Deliver to, if different: ...

STARRE ENTERPRISES, INC ...

NORTH CAROLINA OFFICES ...

P.O. BOX 1075 ...

MOCKSVILLE, NC 27028 ...

JOHN NICHOLS 336-756-7827 <-Contacts-> ...

Customer Order #: 10002342 Our Order #: 2000432 Dept: Shipper Per: ROBERT PARKER Prepaid/Coll/3rd: 3RD PARTY ... COD Amt: COD Fee:  Prepaid:  Collect:

Pick Placards:  Remit C.O.D. if Different Address

Special Instructions: DELIVER BETWEEN 8:00AM AND 3:00PM M-F ...

Route: RT 52 EXIT #13 NORTH TO BUILDING ON RIGHT - 0.5 MILES

BOL Message: MAKE SURE TO FASTEN PALLETS AS MATERIAL MAY SHIFT DURING TRANSIT

Qty	UM	HM	Description of Articles, Kind of Package, Special Marks	Weight	Total Quantity	Class	NMFC	Sub
10	SKID	<input type="checkbox"/>	88007 CUSTOM BURNED CD'S	1000 LBS	50			
1	SKID	<input checked="" type="checkbox"/>	88766 POOL CHEMICALS	100 4 Boxes	50			

11 1100

F2 - Lookup Fields F4 - Change Shipper F9 - Print labels F12 - Send Frt Bill to/3rd Party Network Edition