

Legal Appraisal of Electronic Bill of Lading in Pakistan: Challenges and Opportunities

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Abstract

Bill of lading is centuries old pivotal legal document of carriage of goods via sea. Bill of lading (B/L) is issued by the carrier in three to six copies carrying all detailed description of the quantity and quality of cargo to the shipper in acknowledgment of taking custody of the goods/cargo to be shipped to a designated port or place against a consideration. There are four legal conventions on B/L globally which give detailed list of legal rights and duties of the parties involved in a shipping contract. B/L plays a diversified role of a receipt of cargo, evidence of contract and above all as a title document of the cargo laden on the ship. A consignee has to surrender original copy of the B/L to take delivery of the cargo from the carrier. Transmission and exchange of shipping documents in paper form costs ten to fifteen percent of the cost shipping, amounting in billions of dollars. It is ironical in this age of Information Technology (IT) that parties and authorities involved still rely on shipping documents in the paper form. There is a realization in the stakeholders seeking ways out to switch from paper to Electronic Bill of Lading (EBL). Being a title document of cargo, a B/L cannot be sent via open online source rather there must be some close ends systems of sending shipping documents digitally. In this regard stakeholders have given them legal recognition to some platforms which provide services of sending B/L digitally rather than in paper form. Approach of shipping industry is conventional and cautious due to high stakes involved in the shipping transactions so, slowly but gradually this transition is happening worldwide. This research work is intended to evaluate the possibility and practicability of switching B/L from in Pakistan, taking into consideration the pros and cons of both the versions while discussing the legal challenges and opportunities of this shifting and deliberating on all prevailing laws on B/L globally and particularly in Pakistan locating the legal gaps then coming up with concrete recommendations with respect to Pakistan.

Keywords: *Electronic Bill of Lading. Shipping Contracts. Legal Challenges.*

1- Introduction

An endeavor to evaluate the possibility and practicability of switching Bill of Lading (B/L) form while discussing their strengths and weaknesses and more importantly legal status and functional equivalence of both globally and specifically with regards to Pakistan. Trading and particularly international trading have been around since time immemorial but it has never been as crucial as in this era of globalization where no country is self-sufficient in everything it needs and all are interdependent. So, it is inevitable to trade with each other for things or products needed or may be having them in abundance. So, countries resort to import and export and to do this, shipping is like a jugular vein, particularly shipping of cargo via sea.

Shipping industry is one of the biggest industries of the world and no international trade is possible without shipping due to its ability to handle and deliver cargo not only on a large scale but also on the cheapest possible among all other transporting options worldwide. That is the reason why shipping of cargo via sea constitutes more than 80% of the total international trade worldwide. To conclude a transaction of carriage of goods by sea there are few indispensable documents which are to be made and exchanged among the parties and out of all those important documents the most important one is called Bill of Lading.

B/L is a pivotal legal indenture of international trade via sea. B/L is vital due to its role as a linchpin in a shipping transaction. Its role is diversified as it plays firstly the role of a formal written acknowledgement of taking delivery of goods by the carrier and issued to the shipper and secondly as a written proof of an agreement between the parties to the shipping transaction with legal bindings amongst parties and above all thirdly its distinguishing role it plays as a title document which makes it negotiable and unique among all other shipping documents. A consignee has to present and surrender an original B/L to take the shipment as per agreement and the carrier has a legal right to hold the shipment until the original B/L is produced by the consignee. A B/L normally has 3 to 6 copies depending on the nature and requirement of the transaction for carrier, consignor, consignee and bank respectively or as the case may be.

Irony is that a document of this much importance is still being used in a conventional paper form mostly which has many drawbacks and those drawbacks can be avoided by replacing paper

B/L with Electronic Bill of Lading (EBL). This research work is to discuss and evaluate the possibility and the practicability of doing that, while taking into consideration the challenges and the opportunities of this shift paper B/L to EBL globally and particularly with regards to Pakistan.

Research methodology in this work would be doctrinal in nature. An in-depth analytical and comparative study of different international conventions on B/L and legal systems and digital platforms already available in the world for digitalization of shipping documents would be made to find the best possible solutions for Pakistan. All the laws and legal frameworks available globally for this particular sector would be discussed. Role of all relevant authorities and the global platforms and stakeholders will be taken into consideration. Systems which are approved by the stakeholders to provide the services of issuing digital shipping documentation, especially Electronic Bill of Lading (EBL), will be discussed in detail and the way these systems work would also be explained in details. All the relevant Pakistani laws for shipping contracts and those which are related to digitalization would be looked into and gaps would be identified to be filled in legal perspective. Historical background, characteristics and pros and cons of both paper and EBL would be analyzed and on the basis of that analysis, conclusions and recommendations would be made at the end of this research work.

2- Bill of Lading and its Types

Before moving ahead defining a B/L for the better understanding would be pertinent here. The simplest definition of a B/L is a written acknowledgement of cargo loaded on the ship or taken into custody for loading, which a carrier gives to the shipper. A formal written acceptance and acknowledgement of the goods laden on ship by a carrier given to a shipper undertaking the contract of delivering the said cargo mentioned therein to a destination port or place mentioned in the contract of affreightment against a monetary reward in a prescribed time. Carriers are ship-owners as charterers of ships are service providers of arranging shipping agreement which is solemnized with shippers called freight forwarders. Carrier issue the B/L after taking custody of the goods to be shipped and then B/L plays the role of a receipt of goods handed over to the carrier as a proof of contract of affreightment between the carrier and the shipper and the shipper can send it to the consignee who can use this B/L as an entitling document on the port or place of delivery.¹

¹ SW Makau, 'An Analysis of the Bill of Lading and Its Impact on Trade' (2022) SSRN <https://doi.org/10.2139/ssrn.4187879>.

B/L is a centuries old phenomenon but there was no universal legislation about B/L till late 19th century, so parties to a contract of carriage were free to agree on any terms for their contract, which used to lead to a situation where carrier always had upper hand due to its better negotiating position which it used to enjoy at the eve of bigger financial stakes in the form of ship, so shippers had to agree with the terms of carrier and had no other choice otherwise they could not ship their cargo.²

The role of B/L is quite crucial and diversified in a shipping transaction as it plays the role of a receipt by the carrier to the shipper and as a proof of the agreement between the shipper and the carrier and above all the role it plays as the title document of the cargo laden on the ship. This role of B/L as a title document makes it the truly a pivotal one as without this the delivery of the cargo is not possible but on exceptional cases where the consignee provides the letter of indemnity in lieu of the B/L. Being a title document gives a B/L the feature of negotiability if the B/L is not issued to a specific person whose name is mentioned on the B/L then it will not be negotiable and only that particular person can take the delivery of the cargo but in case the issued B/L is an order B/L then the cargo in transit can be sold and bought many times during the transit and it is done quite often in the case of bulk cargo.³

Three things which make a B/L as a title document, first is that the holder can take the delivery of the cargo at the destination port, second that the cargo can be sold and purchased during the transit only by indorsing the B/L and the third is that the B/L can be used as a collateral or security to take a loan from a financial institution.⁴ A B/L carries all relevant information of the cargo being sent, for example names of the carrier, name of the freight forwarder, name of the ship, names of the consignor and the consignee, quantity and weight of the cargo, the port from where the cargo was loaded and the name of the port where the cargo is destined to, terms and conditions agreed upon and special note if any. It also carries the name of the bank if involved in case of letter of credit issued by the bank. International commercial terms shortly known as “*incoterms*”, which are universal rules for import and export made by International chamber of

² T Marin, 'The Bill of Lading, Title of Value in International Carriage of Goods by Sea' (2014) 8(II) Conferința Internațională Educație și Creativitate pentru o Societate Bazată pe Cunoaștere-DREPT 120.

³ F Lupetina, *Bill of Lading* (Doctoral Dissertation, University of Rijeka, Faculty of Maritime Studies, Department of Logistics and Management 2023).

⁴ ME Crowley, 'The Limited Scope of the Cargo Liability Regime Covering Carriage of Goods by Sea: The Multimodal Problem' (2004) 79 Tulane Law Review 1461.

Commerce (ICC) are also incorporated in the B/L. Any description of the goods which is necessary is also written there on the B/L. In short, every possible detail regarding the nature, quantity and the quality of the goods being loaded on the ship is incorporated in the B/L being issued by the carrier.⁵

A B/L contains the whole details⁶, description about goods being carried via sea like names of shipping company, consignor and consignee, the names of ports, the quantity and the value of goods, stipulations of agreement as agreed upon amongst parties. For better understanding of the notion of B/L it is worth discussing a bit about the types of B/L which are pre-existing in the day-to-day shipping. Even though there is not a fixed and specific nomenclature of the types of B/L as it varies region to region and it is quite possible that a type of a B/L may be called with a different name in the other part of the world but the essence would be the same. There are some common and most used types of B/L are mainly divided into two main categories which are (i) Negotiable, and (ii) Non-negotiable B/L. Negotiable Bill of Lading is the one which may also contain the name of the consignee and along with the name, the words on order or on demand is also there, which makes the B/L a negotiable and transferable document. This type of B/L are used when the cargo is to be sold and purchased during the transit and the holder the B/L having the title of the goods can sell and transfer the ownership to any other party. Financial institutions like banks also like this type of B/L as this give them the liberty to use the B/L as a collateral for the recovery in case of the default of the party.⁷

There are many sub classification of negotiable B/L and some of them are (i) Order Bill of Lading, (ii) Bearer Bill of Lading, (iii) Clause Bill of Lading, and (iv) Clean Bill of Lading. Order Bill of Lading along with the name of the consignee contains an order of the shipper which is stipulated with a condition. An order B/L is a negotiable document and not a non-negotiable one as it contains the word order of the consignee and cargo can be delivered to the person other consignee to the person to whom he orders.⁸

⁵ J Coetzee, 'Incoterms: Development and Legal Nature—A Brief Overview' (2002) 13 Stellenbosch Law Review 115.

⁶ A Chircop, 'Book Review: Shipping Law, International Trade Law, International Trade Law Statutes and Conventions 2011–2013' (2013).

⁷ T Schmitz, 'The Bill of Lading as a Document of Title' (2011) 10(3) Journal of International Trade Law and Policy 255.

⁸ R Aikens, M Goldby, RL QC, MB QC, M Bolding, and KS T SC, Bills of Lading (Informal Law from Routledge 2020).

Bearer Bill of Lading is an open B/L which makes any person who is holding the B/L, able to take the delivery of the cargo from the destination port. It is the most flexible type of B/L, which has its pros of being the most welcomed B/L by the financial institutions as it gives them the right of negotiability and the cons of being the most vulnerable B/L as its open to anyone who holds it to take the delivery of the cargo at the destination port.⁹

Clause Bill of Lading when the carrier is not satisfied by the information provided by the shipper about the quantity or the quality of the goods being loaded or due to being unable to check the cargo thoroughly or due to any visible sign or mark indicating or suggesting any fault and discrepancy in the statement of the shipper about cargo being laden on the ship, he may add some condition or clause while issuing the B/L to shipper, stating the reason of doing so. This type of B/L is avoided by the shippers and financial institutions providing documentary credits against shipping documents.¹⁰

Clean Bill of Lading is when carrier may on the request of the shipper issue a B/L containing the word clean B/L mentioned to emphasize the quantity or the quality of the cargo being loaded. This type of B/L are issued for the reassurances required by the parties to the contract like consignee or banks in case of loan being taken against the shipping document and to make the B/L, more negotiable and attractive to the buyers. This type of B/L may cost some extra charges and insurance to the shippers.¹¹

Non-negotiable B/L also called Non Transferrable B/L are those which have on them, clearly mentioned the name of the consignee and other than that do not contain the words, order or bearer on the B/L, which means that only the mentioned consignee can take the delivery of the cargo, not anyone who holds it or is the bearer of it. These B/Ls have the same role of receipt of cargo and the evidence of the contract of affreightment and the role as a title document but lose the feature of negotiability and eventually are not welcomed where credit financing by the financial institutions is involved.¹²

⁹ I Djadjev and I Djadjev, *Shipping and the Law on Bills of Lading and Charter Parties: The Obligations of the Carrier Regarding the Cargo: The Hague-Visby Rules* (2017) 1-30.

¹⁰ I Djadjev and I Djadjev, *Obligations of the Carrier Regarding the Cargo* (Springer 2017).

¹¹ C Pejovic, 'Clean Bill of Lading in Contract of Carriage and Documentary Credit: When Clean May Not Be Clean' (2015) 4 *Penn State Journal of Law & International Affairs* 127.

¹² FW Chan, 'A Plea for Certainty: Legal and Practical Problems in the Presentation for Non-Negotiable Bills of Lading' (1999) 29 *Hong Kong Law Journal* 44.

Here under are the few popular types of non- negotiable B/L (i) Seaway Bill of Lading, and (ii) Straight Bill of Lading.

Seaway Bill of Lading is a non -negotiable Bill of lading¹³. Sea way bill is a document of sea trade which is used as receipt and as an evidence of contract between the shipper and the carrier. When the cargo is to be loaded and unloaded during the transit as in the case of transit shipment which means the cargo is not being shipped from point a to point rather it is to be sent from different destination then it is not possible to produce original B/L and surrender it as the consignee will not be able to take of the cargo at the destination port, so the alternate came in the form of sea way bills.¹⁴

The difference between the seaway bills and a normal B/L is that B/L is a document of title whereas sea way bill is not a document of title rather. It has other two function of receipt and evidence of contract but to define the legal rights and duties of the parties to a shipping contract a document of title is required which is B/L not a sea way bill. A sea way bill is beneficial where the cargo being shipped is to be shifted from one ship to another as is in the transit or if the sender and the receiver of the cargo is the same company and does not need the document of title.¹⁵ Straight Bill of Lading contains a name specified as a consignee and does not contain the word order or on demand is called a non-negotiable B/L or a straight B/L. It is a not transferable to anyone other than the name mentioned on the B/L. Banks normally do not prefer non- negotiable B/L and prefer to accept negotiable B/L.¹⁶

3- Challenges of Paper Bill of Lading

A conventional paper B/L which is used in the shipping industry excessively due to its solid characteristics and diversified role it plays in a shipping transaction is also associated with a lot of challenges and drawbacks due to being in paper form. The most common ones are (i) Financial Drawbacks, (ii) Time Consuming, and (iii) Risk Factor, etc.

¹³ JE Fernandez, 'Paramount Clause and Codification of International Shipping Law' (2019) 50 Journal of Maritime Law & Commerce 45.

¹⁴ G Akbulut and C Balci, 'Waybill, Bill of Lading and Delivery without Bill of Lading in the Practice of Turkish Maritime Trade' (2023) 29 GSI Articleletter 98.

¹⁵ BT Gavrilovikj, 'Transfer of Rights Incorporated into a Bill of Lading as a Type of Commodity Security' (2013) 1 Balkan Social Science Review 141.

¹⁶ DY Lee and P Sooksripaisarnkit, 'the Straight Bill of Lading: Past, Present, and Future' (2012) 18 Journal of International Maritime Law.

In financial drawbacks, making and sending paper bill of lading and other documentations costs up to 15 % of the total cost of carriage as per UKP&I club legal briefing on electronic Bill of lading because carriage of goods by sea involves many authorities like customs and port authorities and parties like carrier, consignor, consignee and a freight forwarder or agent who performs on behalf of consignor or consignee and there are at least two countries involved and sometime even more than two countries when ports of different countries are involved and cargo is sold during the voyage or whatever the case may be, minimum two countries are must to make it an international transaction and for that the documentation in the form of paper documents of shipment are sent to the concerned stakeholders and authorities to make the transaction possible and paper documents of such importance which are crucial to prove the ownership of the cargo and for the smooth transition of the cargo which is to be shipped internationally and those type of documents are sent through reliable and quick service of international courier for sending them so that it may reach in time to the concerned parties enabling them to take delivery of the cargo and prove their title.¹⁷

Type of courier services who render their services to deliver anything internationally and in the quickest possible time with safety are not cheap rather are pretty much costly and due to the critical nature of work and time and resources to make it happen in time, this leads to a cumbersome financial burden as mentioned above based on the reports that this process of sending and receiving shipping documents internationally costs around ten to fifteen percent, which is quite hefty amount.¹⁸

Amount of a single shipment is in millions and in a single cargo carrying ship there are thousands of shipments in the form of containers and there are ships ranging from two thousand to twenty thousand containers on a single ship which is measured in the Twenty Foot Equipment Unit (TEU) and as per UNCTAD report of 2019 estimated 793.26 million TEU were handled only in 2019, this can give the idea of the volumes in container trade via sea, which is only a segment of maritime trade because there are bulk carriers, tankers etc. and in case the of bulk cargo or tankers the amounts and volumes of the cargo are humongous and if a big chunk of amount is spent on making, sending and exchanging the paper documents, that is not worth it, particularly in

¹⁷ P Todd, 'Electronic Bills of Lading, Blockchains and Smart Contracts' (2019) 27(4) International Journal of Law and Information Technology 339.

¹⁸ H Dick, 'the 2008 Shipping Law: Deregulation or Re-regulation?' (2008) 44 Bulletin of Indonesian Economic Studies 383.

the era of technology and speed and where so many alternative of digital transfer and transactions are available.¹⁹

Another disadvantage of paper B/L is that the time it takes to reach to different countries and most of the times those documents are sent back and forth between the parties to the shipment which are residing in different countries and they send and receive multiple documents to conclude the transaction and this takes days if not weeks to happen.

It is quite possible rather happens quite often that cargo has reached to the destination port but documents have yet not reached specially in the case if the cargo is to be sent to a nearing or neighboring country like if a cargo is sent through Dubai to Pakistan it takes two to three days and in a scenario where cargo has reached but the documents have not reached to the concerned parties yet, then the carrier has no other option to hold the cargo as the carrier cannot release the cargo to the consignee until he gets the documents, specially B/L and result in delay and extra financial burden in the form of demurrage charges. Sometime consignee and carrier agree on the presentation of a Letter of Indemnity (LOI) in lieu of B/L that will also be a time taking and extra financial and administrative burden on the parties, particularly for the consignee. LOI still does not relieve the carrier from his duty of getting shipping documents i.e., B/L of the shipment which needs to be surrendered by the consignee to the carrier to take the delivery of the cargo.

This whole process of sending and receiving document of a shipment amongst the parties and the times consumed on this makes the paper B/L less practical as compare to digital documentation and transfer of documents which takes way less time than the old paper B/L. B/L being in paper form is always vulnerable to be lost or damaged or even be forged, as any paper document has a likelihood of being torn, tempered or lost in the process of handling and being exchanged. A shipment which is sent by ship via sea and eventually involving many stakeholders and parties of at least two countries is always exposed to risks mentioned above and it can lead to a situation where the cargo delivery is held back and eventually an enormous challenging situation can arise for the shippers.²⁰

¹⁹ S Singh and B Sengupta, 'Sustainable Maritime Transport and Maritime Informatics' in *Maritime Informatics* (Springer International Publishing 2020) 81.

²⁰ K Takahashi, 'Block Chain Technology and Electronic Bills of Lading' (2016) 22 the *Journal of International Maritime Law* 202.

A complete shipping transaction involves many parties and authorities of two or more countries as the case may be, which means the shipping documents are to be sent and exchanged in many hands and when the documents are dealt in so many hands it is not out question that documents of such importance are not exposed to the risk of being damaged or lost or tempered. This whole risk can be avoided if it is replaced with an encrypted digital document that is the reason why it is EBL seem to be more practical option rather relying on the paper B/L.

4- Electronic Bill of Lading

When B/L is sent digitally instead of sending in paper form then it is called Electronic Bill of Lading (EBL). EBL is a recent phenomenon as compare to paper B/L which is a centuries old concept whereas EBL has come to limelight after the boom of internet and particularly in 21st century and it has got recognition and acceptability as the growth of online transactions and digital exchange of documents has become unprecedented and it has become the new normal. now a days when online buying from groceries to most precious items is just a matter of few clicks and digital transfer of funds and documents has become a part of life of almost every person globally, it seems strange when an industry which is a multi-billion-dollar industry still relies on the use of paper documentation whereas even the currency has become paperless. This is the high time when this transition can happen and the good thing is that there is an urge in global trade community to do this as well specially after being struck.²¹

First effort with regards to EBL was made in 1990 when CMI Rules were published and it was a first of its kind as a guideline for the promotion and transition of EBL. Then with the growth of information technology it came to surface as an option to the shipping and the work done by UNCITRAL in preparing model laws also helped the cause of clearing the ambiguities regarding the use and equivalence of EBL and now this age of digitalization it has become a necessity.²²

As for as legal status of EBL concerned it is quite clear and undoubted that an EBL lading is as good as a paper B/L from legal point of view and the functional equivalence of EBL is also acknowledged worldwide. Both IG P&I Clubs and BIMCO that are controlling authorities and the most important stakeholders as they represent the owners of the ships and the carriers and they are

²¹ CJCT Tseng, 'Electronic Bills of Lading in the Light of the Rotterdam Rules 2009' (2018) European Proceedings of Social and Behavioral Sciences.

²² P Rembauville-Nicolle, 'Reflections and Perspectives Regarding Guidelines on the CMI on General Average' (2016) 48 Rev Rom Drept Mar.

the ones who have the most of the stake in a contract of carriage, they have approved the EBL as a legally valid document. BIMCO clauses a, b and c expressly say that an EBL is to be treated same as a paper B/L and no party can refuse to accept an EBL provided that the issued EBL has been made on the approved systems and comply all relevant laws. And all EBL issued by the approved systems are fully legally cover by BIMCO and IG P&I Clubs.²³

Main international representative bodies are Protection and Indemnity (P&I) Clubs like UK P&I Club and Baltic and International Maritime Council (BIMCO). Whereas many regulatory bodies are there and some of those are subsidiaries of UN like IMO, United Nations Commission on International Trade Law (UNCITRAL) and United Nations Conference on Trade and Development (UNCTAD) and some are independent financial regulatory bodies with the likes of Through Transport (TT) Club, Committee Maritime International (CMI), International Chamber of Commerce (ICC) and Society of Worldwide Interbank Financial Telecommunication (SWIFT).²⁴

All other authorities which are holding the controlling position in maritime sector also encourage and promote the use of EBL and give complete legal cover to EBL like IMO, CMI and other legal, trade and finance authorities like UNCITRAL, UNCTAD and forums like ICC and SWIFT also accept the legal status of EBL.²⁵ EBL is the alternative available, question arises about its vulnerability and hack ability as being online and in soft form and the next question arises whether it can perform the function of B/L as a receipt, as an evidence and most importantly as a document of title and who can authenticate an EBL and sign the document online and whether accepted a computerized signature or not.

The stakeholder and one who can approve a system to be authentic and practical is the body called P&I Club, there are total thirteen of them collectively known as International Group of P&I Clubs shortly known as IGs or IGP&I Clubs. This is a controlling body which is a Non-Profit Cooperative Authority of Ship-Owners and it has approved total three systems so far for Electronic Data Interchange (EDI) who can issue a valid legal EBL, which are namely (i) BOLERO, (ii)

²³ L Song, 'International Group of P&I Clubs/BIMCO Revised Himalaya Clause' (2018) 24(1) *Journal of International Maritime Law* 11.

²⁴ D Walters, N Bailey, D Walters, and N Bailey, 'Regulatory Features of the Maritime Industry' in *Lives in Peril: Profit or Safety in the Global Maritime Industry?* (2013) 98-128.

²⁵ PK Mukherjee et al, 'Farthing on International Shipping' in (2013) *Springer* 265-285.

EssDOCS, and (iii) E-title™. There are three approved platforms by the stakeholders to provide services of EBL, namely (i) BOLERO, (ii) EssDOCS, and (iii) E-Title™. All three are discussed separately as under.

Bill of Lading Electronic Registration Organization (BOLERO) came into being in 1999 and is the oldest platform made for EBL and it was an initiative of International Chamber of Commerce (ICC) and Through Transport Club (TTC), which is a subsidiary of UK P&I Club and leading insurance risk management service and Society for Worldwide Interbank Financial Telecommunications (SWIFT). Aim of making it, was to make an EBL which can work and process same as of traditional B/L without losing any characteristic of a paper B/L. It is a close end system which means that it can be accessed only by its members and is restricted for the others. A multilateral agreement is made in the “Rulebook” of the BOLERO which ensures equivalence of this EBL with traditional B/L and provides complete legal framework. The system is accessed by internet and no papers through postal or courier service are required and when needed the online available EBL is converted in paper form, if and when required to do so. No special hardware is required but only the internet and the registered access. First the draft of the agreement is made and sent to other party and the parties here are the carrier and the shipper and consignee. When agreed the draft is signed digitally and after signing it becomes official legal document i.e., EBL, when afterwards if any correspondence is done it is done digitally also it is sent signed and it is encrypted so that no one other than the key holder or the password holder can have the access to the document as it is in encrypted form. There can be only one holder of the EBL at same time. A principle of novation is used in the contract which means the transfer of rights from one party to the other one extinguishes the duties of the previous one like the agreement which is made between the carrier and the shipper and when the B/L is sent to the consignee the rights to sue also shift to the consignee as there can be one holder of the B/L and the new holder which is consignee can sue and can act as consignor or the shipper. Every time there is an activity like the transfer of B/L or any amendment made in the B/L, a notice is sent to all parties concerned by the system and principle of attornment which means the proper transfer of property which is goods/cargo is in this case is made and intimated and systems lets informed every party involved on every happening.²⁶

²⁶ M Goldby, 'Electronic Bills of Lading and Central Registries: What is Holding Back Progress?' (2008) 17(2) Information & Communications Technology Law 125.

EssDOCS is the abbreviation of electronic shipping solutions documents. It was an initiative taken by two Master students in 2009 and now it deals with thousands of customers worldwide. It works very similar to BOLERO and has a central registry for logging and storing. But unlike BOLERO's Rulebook it has its own system known as Data Bridge Service & Users Agreement (DSUA). Each party need to be registered first with the central database and each party gets its own private key which is used to identify them individually whenever they use the platform. When the issuer of the EBL signs the B/L which is sent first in draft form as it is sent in BOLERO system, when agreed it is signed and it becomes functionally equivalent to a paper B/L. It is sent in the encrypted form so that the unauthorized access can be avoided. The system providers mean EssDOCS authorities do not sign on the EBL as they do not have any kind of liability and plays a facilitating role but the parties to the contact have to sign the document which are shipper and carrier. Like BOLERO, EssDOCS also uses the principle of novation which means when the bill of lading is sent from one party to other party the right to sue also transfers to the holder and there is one holder of the B/L at a time as in the previous system. And when the goods are transferred from one party to other a notice in same way as in case of BOLERO is sent to the parties concerned and the principle of attornment is followed in this system as well and the transfer of goods is conveyed to every party by the notice sent through the system. A lot has been done for the cyber security and viruses. The team of this platform are so sure about their software that they provide a standard 20 million dollars insurance cover for every EBL they issue and this service is free of cost they do not charge for that. This is the sign of confidence they have in EBL.²⁷

E-title™ is the third approved system came into being in 2015, initiated by a group of three persons who were previously associated with BOLERO. It also provides the same service of giving a platform of B/L in a digital form as it's two predecessors were providing with practical and legal equivalence but the exclusive feature of this system is that this incorporates provisions of Carriage of Goods by Sea Act 1992 (COGSA) in the agreement that apply the provisions in every contract of carriage which means that parties to the contract agree on the fact that provisions of COGSA apply on the parties in the contract. That is why this system of EBL works differently than the previous two as it does not use the principle of novation as were being used in the previous systems.

²⁷ E Orrù, 'the Challenges of ICTs in the Shipping Sector Among International Uniform Law, Codification and Lex Mercatoria: The Electronic Bill of Lading' in *Codification of Maritime Law* (Informa Law from Routledge 2019) 134-146.

The legal framework in this system is known as “Electronic Title User Agreement”. It is also an agreement involving many parties like the previous two systems which means many parties are stakeholders in the single agreement being made. Instead of a centralized system like the previous two systems this is different in working and works as peer-to-peer system which means there is no need of a central system or server and when the document is transferred it is now the next party who has the control and the role of E-title is a facilitator only. The access to system can be attained through the Singapore TradeXchange official portal or the other option is to get the device which is of course a paid device working as a “Black Box” as in an airplane in which all data is stored and can be retrieved at any time and does not get damaged even in worst case scenarios like crashing and fire but it is saved and attained to retrieve data from it to reach to the conclusion and same concept of Black box is taken here in this system of EBL by E-title, and the device which is also called Black box is installed in the carrier’s setup. The shipper can access the portal of the carrier and EBL is made and can be made a paper B/L at any time. Only one person or party can hold a B/L at a same time.²⁸

5- International Legal Framework

Generally, B/L and EBL attract many clauses of contract act, customs act, trade laws and many other laws of respective countries trading with each other which are aligned with international law, but since the trade and carriage of goods by sea is a bulky business and as mentioned earlier that more than eighty percent of the trade worldwide is carried out via sea and for concluding this, role of B/L is quite crucial, so it’s quite obvious that there must be some specialized laws for B/L. Hereunder are the laws related to B/L prevailing worldwide (i) Hague Rules 1924, (ii) Hague-Visby Rules 1977, (iii) Hamburg Rules 1992, (iv) Rotterdam Rules 2008, (v) Model Law on Electronic Commerce (MLEC) 1996, (vi) Model Law on Electronic Signature (MLES) 2001, and (vii) Model Law on Electronic Transferable Records (MLETR) 2017.

Hague Rules 1924 are known as International Convention for the Unification of Certain Rules of Law relating to Bill of Lading, shortly known as “HAGUE Rules” are first ever universal set of rules regarding B/L. There are 16 articles in these rules. It is quite a rigid set of rules with limited approach as the time of inception suggests. The rules are pro carrier as provide lessor legal

²⁸ MRA Ahmadi, M Elsan, and I Noshadi, 'Comparative Study of Bill of Lading Function as Title Document' (2017) 10 Journal of Politics and Law 188.

protection to the shipper as compare to the leverage provided in the rules to the carrier and carrier is bound to a very limited extent like the liability of the carrier in case of loss, was very limited per package and carrier was not responsible for the delay in delivery of cargo and for the determination of period of liability was based on the principle called “Tackle to Tackle”, i.e., that the carrier is only liable during the period of cargo being loaded by hook and unloaded by the hook from ship even though the cargo was in the custody of carrier being its warehouse or at its place. “HAGUE Rules” only cater paper and conventional form of shipping documents and do not have any room for any kind of digital transmission of shipping documentation. These rules even didn’t cater and were not compatible with container transportation as containerization started much then the inception of these rules so there was a need to amend these which resulted in its successor as a protocol to these rules.²⁹

The Hague-Visby Rules 1977 came into being as in 1963 CMI on the basis of deliberation made by the forum adopted the text of the draft protocol to make some amendments in “The Hague Rules”, and that draft was presented at Brussels Diplomatic Conference on Maritime Law in 1967 and 1968, where it was welcomed by the participants. In this regard UK passed “Carriage of Goods by Sea Act 1971” to give effect to the proposed protocol and that 1971 act came in to force in 1977 which resulted in the amended and reenacted form of Hague-rules turned into The Hague-Visby Rules in 1977. This protocol made these rules compatible with container transport and an effort was made to balance out a bit by increasing the limitation of liability of carrier, amount in case of damages to be paid by the carrier was doubled and a weight-based criterion was introduced. In spite of those endeavors to make the rules a bit fair and balance it wasn’t enough as it still had a lot of criticism and skepticism due to being in favor of carriers as the responsibility of the carrier stated in article 1 of the law was still from the loading to discharge from the ship, commonly known as tackle-to-tackle principle and there also no liability for the delay didn’t support much to the shippers and shipping companies. So, a need for a better legislation was still there.³⁰

Hamburg Rules 1992 came into being as due to the dissatisfaction over the previous set of rules there was a need to bring a more dynamic set of rules and there was a movement in the shipping community, UN sensed the problem and gave the task initially to UNCTAD and later on

²⁹ MF Sturley, 'The History of COGSA and the Hague Rules' (1991) 22 *Journal of Maritime Law & Commerce* 1.

³⁰ ZB Hasan, 'The Weaknesses of the Hague Rules and the Extent of Reforms Made by the Hague-Visby Rules' (2007) *Malayan Law Journal*.

to UNCITRAL to come up with more vibrant and balanced set of rules and the task was completed in the form of “United Nations Convention on the Carriage of Goods by Sea” in 1978, shortly known as Hamburg rules, which came into force in 1992. This convention stemmed from the principle of presumed fault or negligence. It was a bold effort as compared to Hague Rules which were pretty much inclined towards carrier and kind of ignored the rights of shipper, but Hamburg rules gave so much emphasis on the rights of the shippers that one of the criticisms on these rules was that these are pro shippers and tried to marginalize the rights and exemptions available to carrier and that is also the reason why these rules have only been welcomed by miniscule number of maritime trading nations.³¹

These rules adopted a functional and flexible approach as compare to rigid approach of Hague Rules. The period of responsibility of the carrier was enhanced in article 4 of Hamburg Rules and it was from taking control of cargo at loading port to giving back the control to the shipper at port where the cargo was supposed to be delivered and this principle is known as port-to-port principle. Along with many other significant changes brought one thing which was done relevant to this research work of deliberations over the possibility of replacement of paper B/L with EBL, was that first time in the history it was mentioned and acknowledged in article 14 of the Hamburg rules that signature on a document can not only be hand written but also it can be in electronic or mechanical form if it is contrary to the law of the country where the shipment is going or coming from. It was the first step taken towards the digitalization of trade documents by an international forum like UNCTAD and UNCITRAL.³²

Rotterdam Rules 2008 came into being as there was a continuous debate in the field of shipping industry and stakeholders thereof that Hague-Visby Rules were pro carrier and Hamburg Rules were pro shipper and the need of balanced approach was still there and a set of rules which comply with modern needs of the shipping industry and with a practical and balanced in determining the limitation of liability of both shippers and carriers was being felt and eventually CMI and UNCITRAL took the initiative and presented draft of new laws regarding carriage of goods by sea to UN general assembly in December 2008 and a resolution was passed to adopt the

³¹ U Mukherjee, 'Hamburg Rules United Nations Convention on the Carriage of Goods by Sea, 1978 - An Appraisal' (2013) SSRN 1146818.

³² ES Lee, 'The Changing Liability System of Sea Carriers and Maritime Insurance: Focusing on the Enforcement of the Hamburg Rules' (2002) 15 Transnational Law 241.

rules called “United Nations Convention on Contracts for International Carriage of Goods Wholly or Partly by Sea” commonly known as Rotterdam Rules. These rules are yet not in force as there is a minimum requirement of 20 states ratification and after having that rules can come in to force after one year, whereas only Spain, Togo and Congo have ratified the rules so far even though 22 nations have signed the rules but yet not have ratified so rules are not yet in force.³³

These rules are quite compatible with modern age shipping as the concept of limitation of liability is widened and the contract of carriage is considered to be effective the door of shipper to the door of consignee if the contract is made so and this principle is called door-to-door principle as compared to previously known Tackle-to-Tackle in Hague-Visby Rules and port-to-port in Hamburg Rules. The scope of the contract is broader as the title suggests wholly or partly by sea but there must one leg of sea transit to make the rules applicable. Compared to previous ones it is a more comprehensive set of rules and comprises of 96 articles. Apart from many positives of these rules most important one is its openness to the use of electronic documentation, which is quite relevant to this research work as well. Rotterdam rules categorically not only allow electronic transaction and documentation but also encourage the use of that and provide complete legal cover and equivalence to EBL. There is whole two chapters regarding electronic commerce and documentations which are chapter 3, having articles 8, 9 and 10, and chapter 8 having articles 35 to 42 of the Rotterdam Rules.³⁴

United Nations has always played a vital role in international trade and legal matters and have made specialized forums and agencies and one of the most important ones on international trade and law is UNCITRAL which is an abbreviation of “United Nations Commission on International Trade Law” established by General Assembly adopting the resolution No. 2205 o 17 December 1966.

What UNCITRAL does is that it conducts conventions and make deliberation and studies and then provide guidelines and model laws for the easement of trade worldwide. About the topic of this research work there are three relevant model laws so far which are great source of

³³ F Berlingieri, 'The History of the Rotterdam Rules' in *The United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea: An Appraisal of the Rotterdam Rules* (Springer Berlin Heidelberg 2011) 1-61.

³⁴ LS Pallarés, 'A Brief Approach to the Rotterdam Rules: Between Hope and Disappointment' (2011) 42 *Journal of Maritime Law & Commerce* 453.

specialized guidelines of policy and law making in respective countries. These model laws not binding on any country but are highly encouraged by the international law forums to follow and comply as they are made after a long deliberation of representatives of member countries. Those model laws are discussed briefly as (i) Modern Law on Electronic Commerce (MLEC) 1996, (ii) Model Law on Electronic Commerce (MLEC) 1996 was first of its kind in the field of electronic commerce on an international forum prepared by the UN Specialized Body for the International Trade Law i.e., UNCITRAL, regarding transfer and exchange of information in digital form in a commercial transaction being done internationally. Article 1 of this law states that any kind of information in the data form in the context of commercial interests comes under the ambit of this model law. This model law clarified about many terminologies like EDI and data etc. in article 2, legal status of the information in data form was stated in article 5 where it is categorically mentioned that no information could be denied just on the basis if it's being in data form. It was an important step towards legislating about fate of the information shared via digital platforms globally in the commercial spheres.

Article 7 dealt with notion of signature electronically first time in the legal commercial realm on international level and said that these could be accepted if the source and system used is reliable then signatures could be accepted even though there remained many ambiguities about the use and acceptability the of electronic signature as it was a step towards right direction and resulted in another model law eventually. Article 16 of MLEC mentioned a list of actions which could be fulfilled in carriage of goods like conveying a message of receiving a document or intimating about loss or sending an instruction about the cargo or even sending a notice etc.

MLEC was mainly divided in two parts, first dealing with general concepts electronic commerce and second dealt with specialized sectors. It was detailed work which expressly recognized the legal position of use of electronic exchange of information of data regarding commercial transactions globally and encouraged the countries worldwide to incorporate these laws in their local laws so that they can be harmonized standardized globally. Along with the main articles of this model law UNCITRAL also attached a comprehensive guide about how to enact it in local laws of the states by commenting on every article at the end. Crux of the whole model law

is the notion of functional equivalence of paper documents in a commercial transaction with an electronic one.³⁵

Model Law on Electronic Signature (MLES) 2001 came into being as the previous model law by the UNCITRAL paved way on creating an awareness and proved to be great source of guideline for legislatures worldwide, but there was an ambiguity about the authentication of an electronically exchanged document, as the common mean of authentication is signature in any document and in spite of clarity about functional equivalence of paper and electronic document in the commercial legal realm, clarity about the electronic signature was lacking. In this regard UNCITRAL came up with another legal gem in the form of “Model Law on Electronic Signature”, shortly known as MLES.³⁶

The core principle of this model law was the functional equivalence of electronic signatures with the hand written signatures. Article 1 of this model law also reiterates the fact that it deals with commercial transaction only and stating that it does not intend to overrule any law about consumer protection rights. Article 2 deals with definitions like electronic signature, signatory and data message etc. In a way it was an extension or addition to MLEC, intending to troubleshoot the uncertainties regarding electronic signature and like the previous one here as well, UNCITRAL gave a comprehensive guide, commenting on every article of the model law and deliberating the history, rationale and working of every notion discussed.

The concept of encryption for the identification of the person signing an electronic commercial document is discussed in detail. Public-Key Infrastructure (PKI) and all the aspects required to do legislation about electronic signature were discussed in detail. It was a step forward in promotion and acceptability of digital exchange and transfer of commercial documents global. Model Law on Electronic Transferable Records (MLETR) 2017 is the most recent work by the UNCITRAL and it is source of practical guide to make legislation in this regard. A continuation of the chain started from the first model law in 1996 and then in 2001 this is much more practical

³⁵ DR Napatipulu, 'Crossing Border Transactions: Unraveling the Influence of E-Commerce on the Advancement of Transnational Business Law' (2023) 4(1) Transnational Business Law Journal 49-65.

³⁶ A Srivastava and A Srivastava, 'Legal Understanding and Issues with Electronic Signatures' in Electronic Signatures for B2B Contracts: Evidence from Australia (2013) 105-127.

as a lot has been changed since 2001 in the realm of technology and in the acceptability of an electronic document.

Article 7 of this model laws deals with the legal status of an electronic transferable record and states that a document of any nature cannot be denied merely because of its being in electronic form except shares, bonds or investment instruments. Whereas article 19 of MLTER states the non-discrimination of a document issued electronically in a foreign country and are bound to be accepted indiscriminately.

This model law deals with the documents which are in paper form and their functional equivalence with the same of in electronic form. Those which are only in electronic form, are the topic of discussion here. This model also has two parts, one part is of main articles and second part consists of the guide for the enactment of the laws in the respective countries and there is a complete commentary and in-depth review on every article at the end.³⁷

All these model laws are a source and guide for the legislatures to incorporate laws in the local laws. Pakistan can benefit from this and make necessary amendments in laws related to electronic use and exchange of documents, and particularly related to commercial transactions. All these model laws made by UNCITRAL are to assist trading nations worldwide to bring harmony and uniformity in the laws for making it possible to provide conducive environment for the acceptability and workability of electronic documentation, so that the benefits of digitalization can be availed to its fullest extent.

6- Pakistani Legal Framework

In Pakistan there are two basic laws which directly deal with the contract of affreightment and those are briefly described hereunder (i) the Carriage of Goods by Sea Act 1925, and (ii) the Customs Act 1969.

The Carriage of Goods by Sea Act 1925 directly deals with a transaction of carriage of goods by sea. Section 2 of the act states the application of the act on every carriage of goods by sea in a ship from one port to another port of Pakistan or from and to a port outside of Pakistan. Section 4 of the act deals with bill of lading and says that every B/L must have terms and conditions

³⁷ HD Gabriel, 'The UNCITRAL Model Law on Electronic Transferable Records' (2019) 24(2) Uniform Law Review 261-280.

of the rights and duties of the parties to the contract as per the provisions of the act and should have an express statement in B/L regarding the application of this act. Article 1 contains the definitions relating to B/L like who is a carrier and what is a ship and to define limits of the responsibility for the carriage of goods laden on the ship stating that it starts with the time when the goods are loaded on the ship till the goods are unloaded from the ship, this practice is called tackle-to-tackle. This principle of determining the limits of responsibility of the carrier, actually undermines the rights of the shippers as the possibility of loss or damage to the cargo is much higher when the goods are lying in the port under the custody of the carrier, whereas this act does not support the period other than the time of cargo being laden on the ship. Along with defining the limits of responsibilities of the parties, the act also talks about the instances where exceptions can be claimed act of God or fire etc.

It is a simulation, rather a ditto copy of the Hague Rules 1924, and along with many other drawbacks like being pro carrier act and being an outdated act with regards to the current challenges of shipping industry, the biggest one which is relatable to this work is the lack of acknowledgment and support to an electronic bill of lading, which is the need of the hour in contemporary shipping of goods via sea.

There is a dire need of replacing this outdated act as amendments would not work because of the immense volumes of change to be made in almost every article and it is high time to replace it with a comprehensive one, incorporating the model laws of UNCITRAL and having express provisions regarding the use of EBL. Ratifying the Rotterdam rules and incorporating them in the new act for carriage of goods by sea in Pakistan can be practical solution to the problem and will definitely play a role in promoting the easement of international trade in Pakistan and eventually will play a positive role in boosting the economy of our country.³⁸

The Customs Act 1969 is the second most relevant direct act stated that every international shipping transaction is customs bound and all the cargo has to be cleared by customs after making sure proper duties and taxations have been paid. It is of the regulatory nature and is concerned directly with financial aspects mainly, not only for the carriage of goods by sea rather also deals with the duties and customs clearance of goods being carried in any way, by road, air or by sea.

³⁸ A Rogers, J Chuah, and M Dockray, *Cases and Materials on the Carriage of Goods by Sea* (Routledge 2019).

So, the domain of the Customs Act is not only the sea but also the other means of transportation and carriage of goods.³⁹

Even though customs department is fairly equipped with modern technologies and in many aspects deals digitally as there is a WeBOC id for every importer and exporter, which is basically an online register of the customs authorities about the buyers and sellers who are involved in import and export business. The purpose of making this is regulatory and to levy duty and taxation. It does not involve itself in changing the conventional approach in procedural documentation of carriage of goods by sea.

Customs authorities can play a crucial role in the acknowledgement and promotion of the use of EBL instead of paper B/L by taking onboard all the stakeholders and consulting them. This will not only be beneficial to national economy but also it will decrease the work load of customs department and eventually in betterment of the institution.

Express acknowledgements regarding the acceptance and the encouragement of the use of the electronic documentation in the commercial transaction, particularly of import and export will be confidence booster to the shippers and carriers involved in the shipping business. Approved platforms by stakeholders and international institutions can be contacted for the trainings of the staff about the use of the digital documentation involved in the shipping, particularly EBL. Collaborations with international legal and regulatory bodies like UNCITRAL, ICC, P&I Clubs etc., can be fruitful in the journey of digitalization in commercial transaction and especially in carriage of goods by sea.

There are some other laws of Pakistan dealing with digitalization but all these laws have one thing in common that they do not have any specific legislation regarding shipping and particularly regarding digital documentation in the sphere of trade and import and export and resultantly nothing precise regarding paper B/L and EBL.

First law of its kind regarding the use of computer in Pakistan was the act made to prevent the misuse of computers in 1990 named “Computer Misuse Act 1990”, and the second one was the ordinance made in 2002 called “Electronic Transaction Ordinance”. The third law regarding

³⁹ MT Islam and K Alam, 'Revisiting the Customs Act 1969 in Line with WCO's International Convention on the Simplification and Harmonization of Customs Procedures 1974' (2023) 4(1) Indonesian Journal of Law and Society 30-50.

this particular notion of digitalization was made for the prevention of Cybercrime, named as “Cybercrime Act 2007”, and the most recent legislation made in this matter was in 2016 called “Prevention of Electronic Crime Act (PECA) 2016”.

Therefore, there is lot of room in this regard but the good thing is that there is also an urge to do it in the institutions in Pakistan as courts have come to the realization of the importance of digital documentations and role of transfer of electronic records and are open about using and acknowledging these records which are in digital form. Particularly after the eruption of this recent pandemic of COVID-19 the realization of the need of digitalization is there in every sector globally and same is in Pakistan and it is high time for Pakistan to take plunge in the age of modernization through the making laws for digitalization in every sector of life and particularly the sectors and institutions directly related to trade. In this regard the role of the State Bank of Pakistan is also very encouraging which keeps updating itself and has introduced many steps in digitalizing the economy of Pakistan.

Rationale behind the adoption of EBL is that shipping industry is an old industry with high stakes and its approach has always been cautious and conventional due to humongous volumes of cargo and values involved, so stakeholders tend to stick to the proven old methods rather than switching to a new method of working nevertheless how amazing the new method and way of working is, until it is tested time and again for the safety and security of the cargo and interests of all the stakeholders are protected legally.

Whereas law is reactive in nature rather than being proactive, like legislation is done after some issue arises not before the occurrence of any issue, so it's quite rational that law reacts the way it is. Now when the information technology has proven its role in every sector of life and a lot has been said, written and done in the world in digitalizing the shipping sector as well, time has come to make this transition happen. Pakistan is pretty much capable of making this transition happen in every sector and particularly in shipping sector and all the relevant institutions and authorities, and by doing this, can reap the benefits of efficiency and saving a lot of foreign reserves and improved trade balances.

In this era of digitalization where purchases of small amounts to the largest amounts and from food items to properties are being sold and purchased online and transfer of amounts from one bank to another is just a matter of seconds, it is quite strange if the use of conventional paper

documents is insisted and particularly in the trade where time and cost cuttings are always pretty crucial. Realization of the importance of digitalization has never been so high and for Pakistan after the development of Gwadar port it is quite relevant to be a trailblazer in the adoption of EBL to reap the benefits of the campaign of digitalization throughout the world so that the working on the port may not be hampered in the starting phase of the newly built port.

7- Conclusion and Recommendations

The notion of EBL is not that old as the paper B/L rather it goes back to the start of age of information technology. Functional and legal equivalence of the EBL with paper B/L is established and acknowledged worldwide and the stakeholders and regulatory bodies are pretty clear about the legal status of EBL and have approved three platforms to provide services of EBL, namely, (i) BOLERO, (ii) ess DOCS and (iii) E-Title™. Distributor ledger technology also known BLOCKCHAIN technology is going to play a crucial role in shipping transaction for shifting towards digitalization from paper documents. International legal framework for B/L is available in the form of four international legal conventions, namely (i) Hague Rules 1968, (ii) Hague-Visby Rules 1977, (iii) Hamburg Rules 1978, and (iv) Rotterdam Rules 2008. For EBL, Rotterdam Rules and UNCITRAL Model Laws are the source of legislation.

In Pakistan the relevant laws directly dealing with shipping and B/L are (i) The Carriage of Goods by Sea Act 1925, and (ii) The Customs Act 1969. No law expressly deals with EBL in Pakistan so far. Shipping industry has been reluctant to accept and deal with EBL due to the high stakes in a transaction.

A B/L is an unavoidable central document of a shipping transaction due to its proven distinguishing characteristics it possesses from decades and decades, and having acknowledgment of the role of the B/L it is also a pressing need of the time that this crucial document must be converted in a digital one when all the concerning authorities are of the view that it is doable and beneficial for the international trade. The only question is whether it is legally possible? And after the above-mentioned discussions and knowing about the prevailing approved systems and platforms, it can be answered yes. It's now just a matter of time that the EBL is going to replace the traditional paper B/L but at the same time it is also quite evident that it will many years to make it happen and the reason of slow adoption of EBL is the conventional nature and approach of the shipping industry which is due to the high stakes of the stakeholders in a shipping transaction, but

it's like writing on the wall and shipping industry will definitely turn towards the digitalization and this wait and see policy will be over soon.

As far as the use of EBL in Pakistan is concerned, it can be said that it may take some time to reach to the point where a culture of digitalization may be introduced in the shipping sector of Pakistan, but it is quite clear that the sooner it is, the better it is. Use of paper B/L contains challenges and there are opportunities in shifting towards EBL but a legal acknowledgement and recognition is required at institutional level in Pakistan. Some of the concrete steps to be taken by relevant authorities in legal and administrative level are discussed in the recommendations as (i) replacing the current outdated act “The Carriage of Goods by Sea Act 1925” which is totally based on the “The Hague Rules” by the new act expressly compatible with digital documentation, (ii) incorporation of UNCITRAL Model Laws in local laws by legislation in Pakistan, (iii) ratifying “The Rotterdam Rules” and doing legislation to incorporate the clauses in these rules, (iv) express acknowledgement and promotion for the use of EBL by the customs department of Pakistan, (v) collaborating with approved platforms for EBL like BOLERO, ess DOCS and E. title™, and (vi) arranging trainings for the port and customs personals dealing directly with shipping documents.

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