

Applied Business Research

On

(Block chain)

Submitted in partial fulfillment of the requirement for

Executive Masters in Business Administration (EMBA)

(General Management)

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S P Jain School of Global Management

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Sincerely. Sunil Veeramani Iyer

Name / Roll No. EMU4180832

DECLARATION

I, **Sunil Veeramani Iyer**, hereby declare that the matter included in this **Applied Business Research** (ABR) report entitled “**Development of suitable network framework for SME Freight Forwarders using Block chain.**” is the result of the study and research carried out by me. I further declare that this is my original work and it has not been published anywhere before.

This Project work has been carried out for the sole purpose of submission in partial fulfillment of the requirement for the **Executive Masters in Business Administration** (EMBA), major in **General Management-**, at S P Jain School of Global Management, Singapore.

I have read, understood and signed the Code of Ethics in accordance with ABR guidelines.

The above is true to the best of my knowledge and understanding.

Name of the Student – **Sunil Veeramani Iyer**

Roll No. - **EMU4180832**

EMBA BATCH -**VIII**

Signature

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Student Name / Roll No. : Sunil Veeramani Iyer /EMU4180832

Date: 30-11-2019

(Sign) -----

-- X --

Internal Mentor

Name – **Dr. Rahul Altekar.**

Signature



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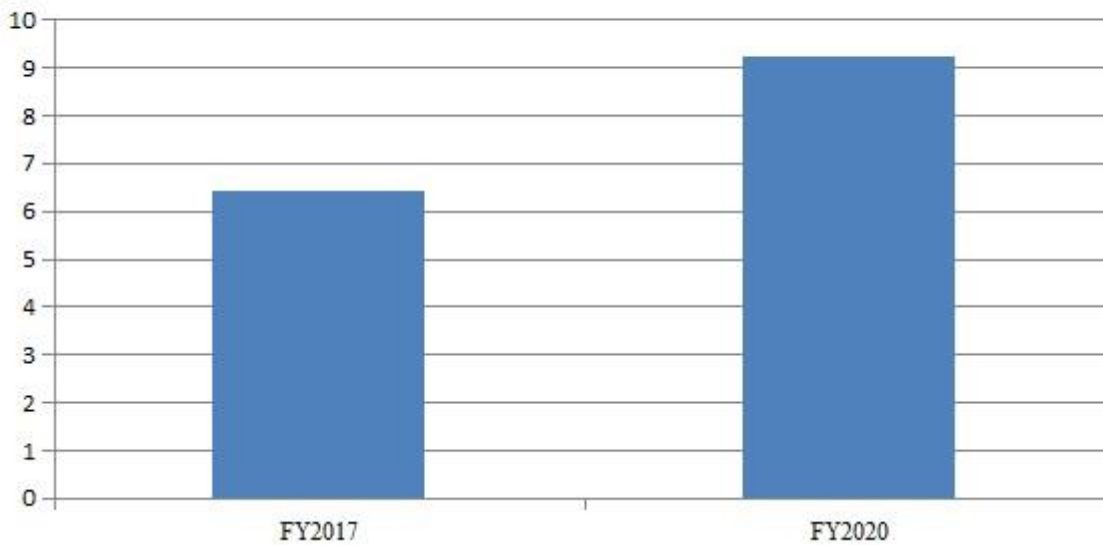
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Title: - Development of suitable network framework for SME **Freight Forwarders using Block chain.**

ABSTRACT

The Indian logistics sector has been growing at good pace. According to the domestic rating agency ICRA, The logistics sector in India is expected to grow at 8 to 10 per cent in the medium term. This will be an improvement considering the compound annual growth rate (CAGR) for the industry growth was 7.8 per cent during the last five years. The logistics industry of India is currently \$160 billion (Estimated Figures). Looking at the benefits offered by GST implementation in the financial year 2017-18, the figures are expected to go up to \$ 215 billion over the next two years. This estimation is as per the Economic Survey conducted in 2018. India has seen a considerable amount of development in the logistics Industry which is being reflected in the global rankings for the Logistics performance Index. According to the Global Ranking mentioned in the Logistics Performance Index report- 2018. India jumped to 44th rank in 2018 from 54th rank in 2014 in its overall logistics performance. The Logistics Performance Index scores the country on the Infrastructure, Customs, International shipments, Logistics competence, Tracking & Tracing and Timelines. Looking at the significant jump from 54th to 44th in the last 5 years we can notice that all these parameters have shown significant improvement. The Logistics experts have predicted that industry will produce the highest number of Jobs by 2022. Freight forwarding is a very important component of logistics. Freight Forwarding is a service that helps in Co-ordination and movement of goods from one place to another via single or multiple carriers from air, sea or land. To accomplish this task ,the freight forwarder exchanges communication with other stakeholders involved in logistics such as Transporters ,Custom Brokers , Airlines etc. (to ensure the timely arrival of goods).

Indian Logistics Sector (In Rs Trillion)

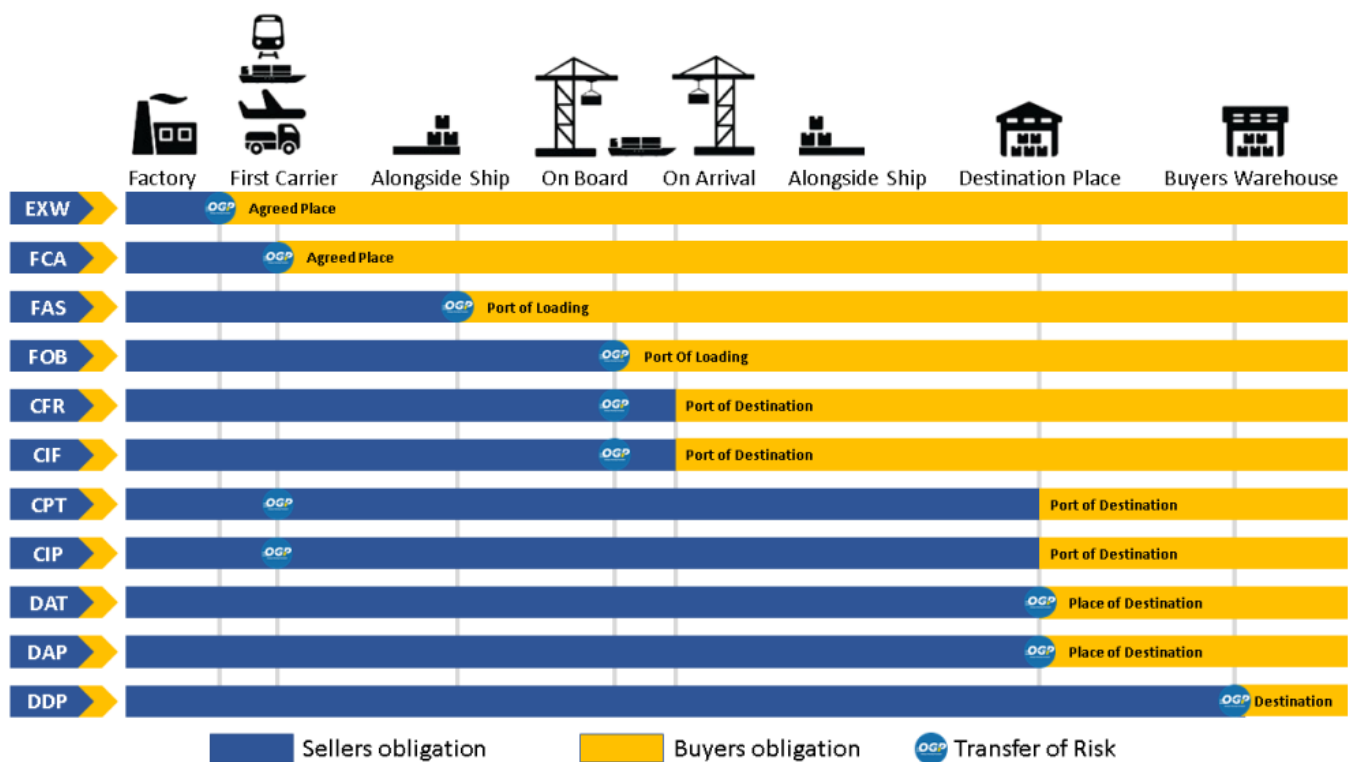


The freight forwarding sector currently provides employment to more than 22 million people in India. Any improvement in this Logistics Performance Index will result in reduction of Indirect Cost in the sector (which would improve the exports). The improvement in exports will further improve the GDP (Gross Domestic Profit) of the country as well as increase employment to meet the demand of the exports. The freight forwarders constitute of both Multinational Companies as well as small & medium enterprises (SME).

Although, SME's with their local knowledge are better equipped to handle the challenges in freight forwarding , transportation , customs & other departments involved in logistics , we can see a surge in the Rising Multinational's with initiation of FDI(Foreign direct investment) in India . This is enabling them to capture a higher market share with economies of scale. It has been noticed that the MNC's have started to capture a strong hold in the Logistics Industry.

This study will discuss the challenges that the SME freight forwarders face with the changing business environment in India as well as look at how an online network Framework using Block chain will help improve the competencies of the SME Freight Forwarder. We will be conducting Surveys & Interviews across several Stakeholders involved in the Logistics Value chain to understand the challenges and evaluate the online framework offered by Block chain to counter these challenges.

1.1 Incoterms – Transfer of Cost, Freight and Risks.



A clear understanding of the transfer of costs, freight and risks between shipper and consignee can be understood as per below –

EXW – Ex-Works (2020)

This term basically gives a representation of minimum obligation from the Seller/Shipper. The Seller/Shipper has to place the goods at an agreed place which is at the disposal of the Buyer/Consignee. The responsibility of the Buyer/Consignee is to carry out all tasks related to export & import clearance at origin and destination respectively. The scope of carriage & insurance will be on the Buyer/Consignee.

FCA – Free Carrier (2020)

This term represents the scope of Seller/ Shipper to deliver the goods at Port, custom clear for export and deliver to carrier which is being nominated by the Buyer/ Consignee at an agreed place. Seller/ Shipper pays for carriage and insurance up to the agreed place mentioned.

FAS – Free Alongside Ship (2020)

This term defines the scope of Shipper/ Seller to deliver the goods alongside the vessel at the named port of shipment. The Shipper/ Seller has to do all the necessary export procedures to custom clear the goods. The Consignee/ Buyer has to bear all costs & risks of loss or damage to the goods from the moment the goods are alongside the vessel. This term is specifically used for ocean transport.

FOB - Free On Board (2020)

This term represents that the Shipper/ Seller must deliver the goods to the named port. The Consignee/ Buyer has to bear all costs & risks for the goods from that point onwards. The Shipper/ Seller must Customs' clear the goods for export. This term is specifically used for ocean transport.

CFR - Cost and Freight (2020)

This term means that the Shipper/ Seller is obligated to deliver the goods at the agreed port of shipment. The Shipper/ Seller's obligation is to pay the costs & freight to bring the goods to the named port (destination), but the risk of any loss/ damage as well as any additional costs because of events occurring after the time of delivery are transferred from Shipper/Seller to Consignee/ Buyer. Shipper/ Seller must clear goods for export. This term is specifically used for ocean transport.

CIF - Cost, Insurance, Freight (2020)

The Shipper/ Seller's scope of work is to deliver the goods at the agreed port of shipment. Shipper/ Seller's obligation is to pay the cost & freight to bring the shipment to the named port of destination. Any risk of loss & damage will be same as CFR. But Shipper/ Seller has to procure a marine insurance policy against Consignee/ Buyer's risk of loss/ damage during the carriage. Shipper/ Seller must clear the goods for export. This term is specifically used for ocean transport.

CIP - Carriage and Insurance Paid (2020)

This term is the same as CPT with the exception that the Supplier/ Seller also has to procure insurance policy against the Consignee/ Buyer's risk of loss or damage to the goods during the carriage. This

term is applicable for any mode of transportation.

CPT - Carriage Paid To (2020)

This term means that the Shipper/ Seller must deliver the goods to the agreed port. Furthermore, The Shipper/ Seller must pay the cost of carriage to bring the goods to the named/ agreed destination. The Consignee/ Buyer has to bear all costs occurring after the goods have been delivered. The Shipper/ Seller must clear the goods for export. This term is used for any mode of transport (including multimodal).

DPU - Delivered At Place Unloaded (2020)

This term means that the Shipper/ Seller pays for carriage to the terminal, except for costs related to import custom clearance at destination, it is assumed that all risks up to the point that the goods are unloaded at the terminal is on the Shipper/ Seller.

DDP - Delivered Duty Paid (2020)

This term gives a representation of maximum obligation to the Shipper/ Seller. This term should be carefully used as there is always a possibility that the Shipper/ Seller would be unable to obtain the Consignee/ Buyer's import license. The terms mean same as the DAP term with the exception that the Shipper/ Seller also will bear all costs & risks of carrying out customs formalities including the payment of duties, taxes & customs fees.

DAP - Delivered At Place (named place of destination) (2020)

Shipper/ Seller pays for the carriage to the named/ agreed place, except for costs related to import clearance at destination, all risks prior to the point that the goods are ready for unloading by the Consignee/ Buyer will be on the Shipper/Seller.

1.2-Type of Shipments

An **Air Freight Forwarding company** specializes in moving shipment/ cargo by air on a passenger aircraft or specially designed cargo aircrafts called freighters. The scope of handling can be from the shipment being of 10 kg to that of it being a Charter requirement (Full Flight). The specialization of the Air freight forwarder enables them to better understand the challenges of handling an air freight shipment, create a relationship with the GSA, and provide better air freight rates. One needs to have an IATA license to handle airfreight shipments on behalf of the customers.



Challenges for Airfreight shipments in India:-

- Lack of Integration in the cargo Infrastructure.
- Lack of gateway connectivity through rail & road.
- Haphazard custom procedures in Air Cargo Complexes being set up for airfreight shipments.
- Lack of technological up gradation of cargo handling process.
- No performance based service in the industry.

An Ocean Freight Forwarding Company specialized in handling movement of shipments by sea on a vessel/ voyage. An ocean freight shipment is less costly as compared to an air freight shipment and takes a longer transit time for delivery. The shipment can be moved in a container (Full Container Load as well as Loose Container Load), Break-bulk or Ro-Ro vessel depending on the type and size of the shipment.

The specialization of the Ocean Freight Forwarder enables them to better understand the challenges of handling a sea freight shipment, create a relationship with the Shipping Lines, Vessel Operators & Vessel Owners to provide better sea freight rates. One needs to have an MTO license to handle sea freight shipments on behalf of the customers.



Challenges for Ocean freight shipment in India:-

- Limited vessel berths across the country which is leading to inefficiencies in berthing and delays in loading & unloading i.e. high turnaround times for vessels.
- Delays in co-ordinations between several stakeholders involved in the operations due to lack of technology.
- Poor Connectivity across ICD (Inland Container depot) & seaports.
- Navigation channel restrictions do not allow larger vessels to take berth.
- No standardization of prices offered across various shipping lines.

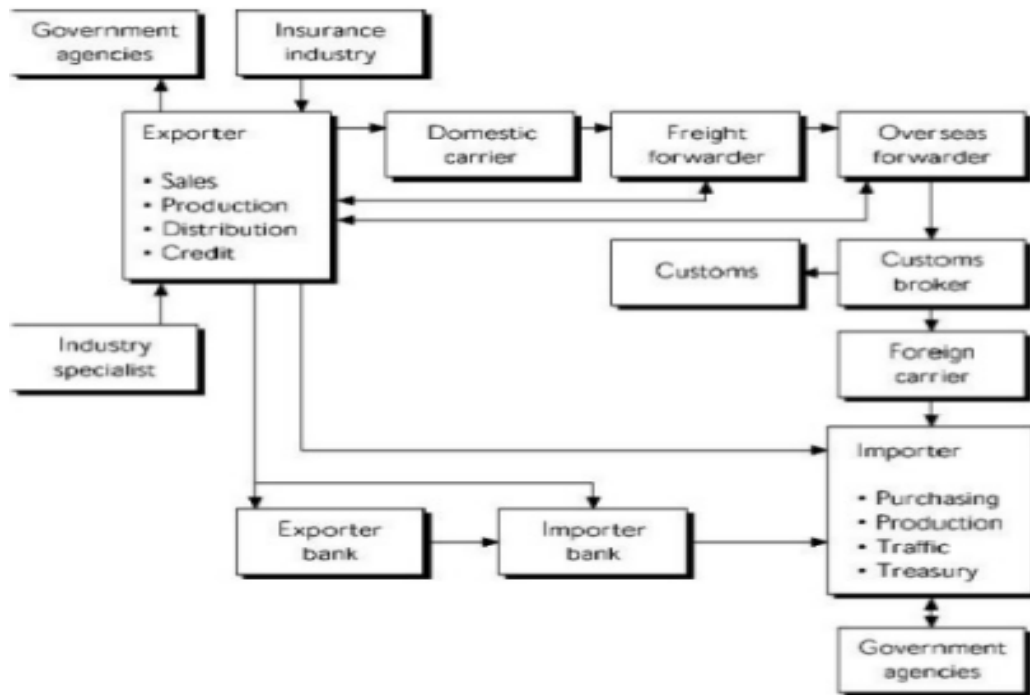
Land Freight Forwarders (Transporters) specialize in handling movement of shipments by road usually within the same country. There are specialized Land freight forwarders who handle shipments to Landlocked Places/ countries.



Challenges for Land freight shipments In India

- Poor quality of Roads and Infrastructure.
- Interstate stoppages at borders leading to delays.
- High fuel costs.
- Driver shortages & retention.
- Tax structure.

Freight Forwarder a crucial Link for Operations In India.



2. Small & Medium Enterprises Matter to the Economic Growth in India



Small and medium-sized enterprise sector is very important for the economic growth of the country.

They are extremely important for increasing the employment in the country. SME's play a very important role in the political economy and help to promote and strengthen reforms. Economically, they have an obvious interest in promoting policies that offer a favorable ecosystem. The SME Sector helps in empowerment and growth of a strong middle class. While SME's tend to have more flexibility in comparison to the larger corporates, they are also very vulnerable to any deterioration in the business environment. Hence, it is very important for the government to look after them.

2.1. MNC's VS SME's:-

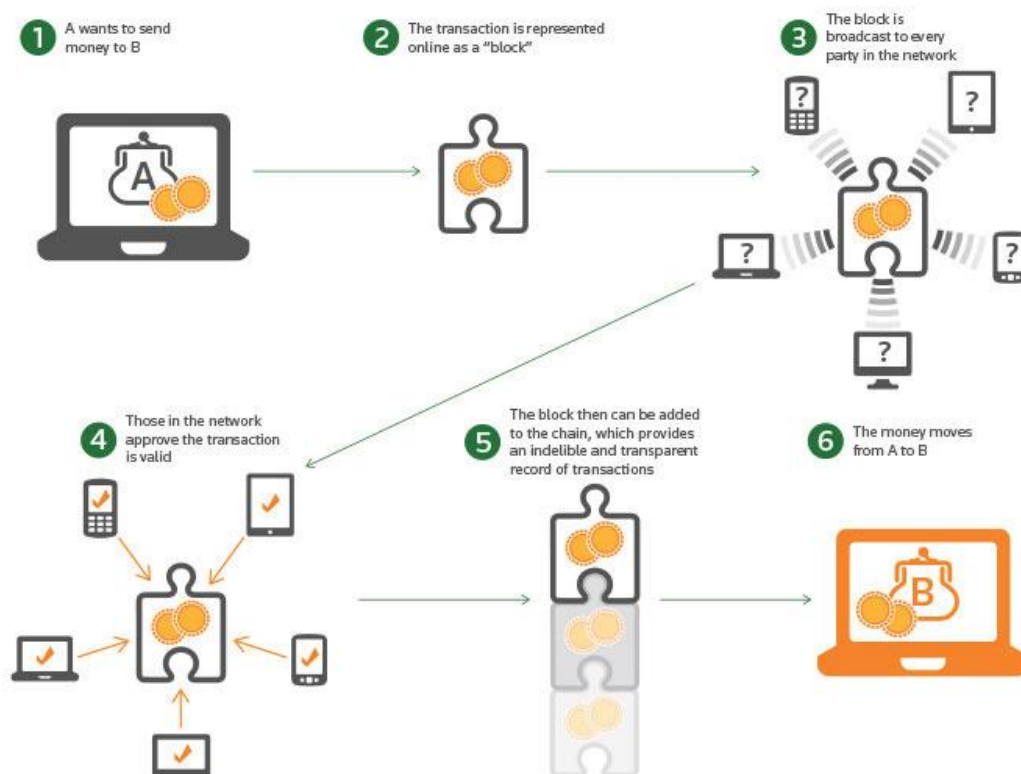


SME's operate in a completely different environment as compared to the MNC's. Operating in a small region as compared to different countries has its own challenges. Multinationals use their favorable size to potentially drive the local operators/ SME out of business as these firms do not have the same economies of scale. Multinational corporations (MNC) are enterprises that have control over assets, facilities and subsidiaries overseas in addition to their headquarters in the home country. In other words, they are global players with budgets to match. Due to their size and reach, MNCs have the power to influence both the world economy and local trading conditions in each of their host nations.

The fundamental interest of multinational company is to optimize their own value chain. For example - shifting production to the location that offers the most favorable conditions for the organization could be one of the reasons. Advantages in supply chain competence, advanced and standardized technology being applied across different regions, better cash flow are few of the advantages MNC's have over the SME's.

The Ecosystem of MNC Freight Forwarder is primarily centralized and operates within the organization. Due to the competitive advantages discussed above, they are always in a better position to offer good rates, real time information flow and prompt response to the customer queries. In comparison, the ecosystem of an SME Freight Forwarder operates through different networks comprising of various other SME Freight Forwarders worldwide which create interdependence.

Understanding of Block Chain & Industries it has been successfully being applied in.



Block chain in literal sense is just a chain of blocks. When we say the words '**block**' and '**chain**' in this context, we are actually talking about digital information (Block) stored in a public database

(Chain).

'Blocks' on the Block Chain are made up of digital pieces of information. They are divided into three parts:

1. Blocks basically store information about transactions like the date, time and amount of your most recent purchase.
2. Blocks store information about who is participating in transactions. A block for your purchase would not only record your name but also every entity in the particular value chain of the purchase transaction. Instead of using your actual name, your purchase is recorded without any identifying information using a unique 'digital signature', sort of like a username.
3. Blocks specifically store information that distinguishes them from other blocks to give it a unique identity, pretty much like you and I have names to distinguish us from one another. Each block stores a unique code called a 'hash' that allows us to tell it apart from every other block. We can tell the blocks apart because of their unique codes.

A single block on the block chain can actually store up to 1 MB of data. Depending on the size of the transactions, that means a single block can house a few thousand transactions under one roof. Banks and financial services, International Trade and Commodities, Energy, Digital Identity, Real estate, Government, Healthcare, Media and Entertainment, Sports are a few of the industries where block chain has been applied successfully.

It helps streamline workflows for stakeholders along the supply chain. The transparency and traceability of block chains provides accountability of goods and commodities at each point of contact.

In the above Introduction, we have looked at block chain and can see on why it is poised to transform many aspects of the world economy. Considering the number of layers it takes for a shipment to move from one point to another, Block chain can certainly help save time and money especially for the SME Freight Forwarders.

Global supply chains have traditionally been inefficient, poorly tracked and often exploitative. Paperwork can account for half the cost of container transport and products are often mislabeled. Block chain networks can help create a shared IT infrastructure which will enable a link between several SME freight forwarders across the world.

Literature Review

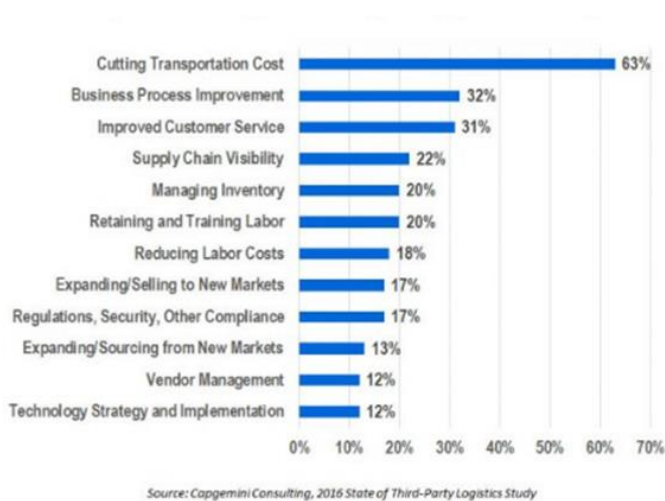
Freight Forwarder is an ideal candidate for Block chain application.

A Block chain is a completely secure and simple list of events or transaction wherein entry cannot be changed once it's been made. Whenever there is a business process comprising of a series of steps involving two or more parties, the entry of the event/transaction is recorded. Access to these events/transactions is given only to the parties involved. Operations in Logistics precisely follow this pattern as it comprises of one of the most complex series of events there is. You can look at all the steps and stakeholders involved in taking a raw material to an end-product at the last mile. There are often hundreds, and sometimes thousands of events/transactions that occur. There is often a requirement of at least a two-way agreement between parties, each with its own economics, paperwork, regulatory issues, and physical limitations. Each step is dependent on the step before it, so if one link of the chain is broken, the entire chain fails. This leaves no room for error.

Block chain is secured, trustworthy & transparent making it ideally suited to large networks of disparate partners of Freight Forwarding. It helps improve and digitize global trade and the supply chain.

Global Challenges for Freight Forwarding

According to a third party logistics study by Cap Gemini, ‘cutting transportation costs’ makes the top of the list as far as concerns for the logistics industry. Some other obvious pain-points make the list as well, but perhaps the most important and at times challenging concern is the need for greater innovations and technology advances while remaining budget-conscious. Let us now look at few of the challenges Freight Forwarding Industry faces



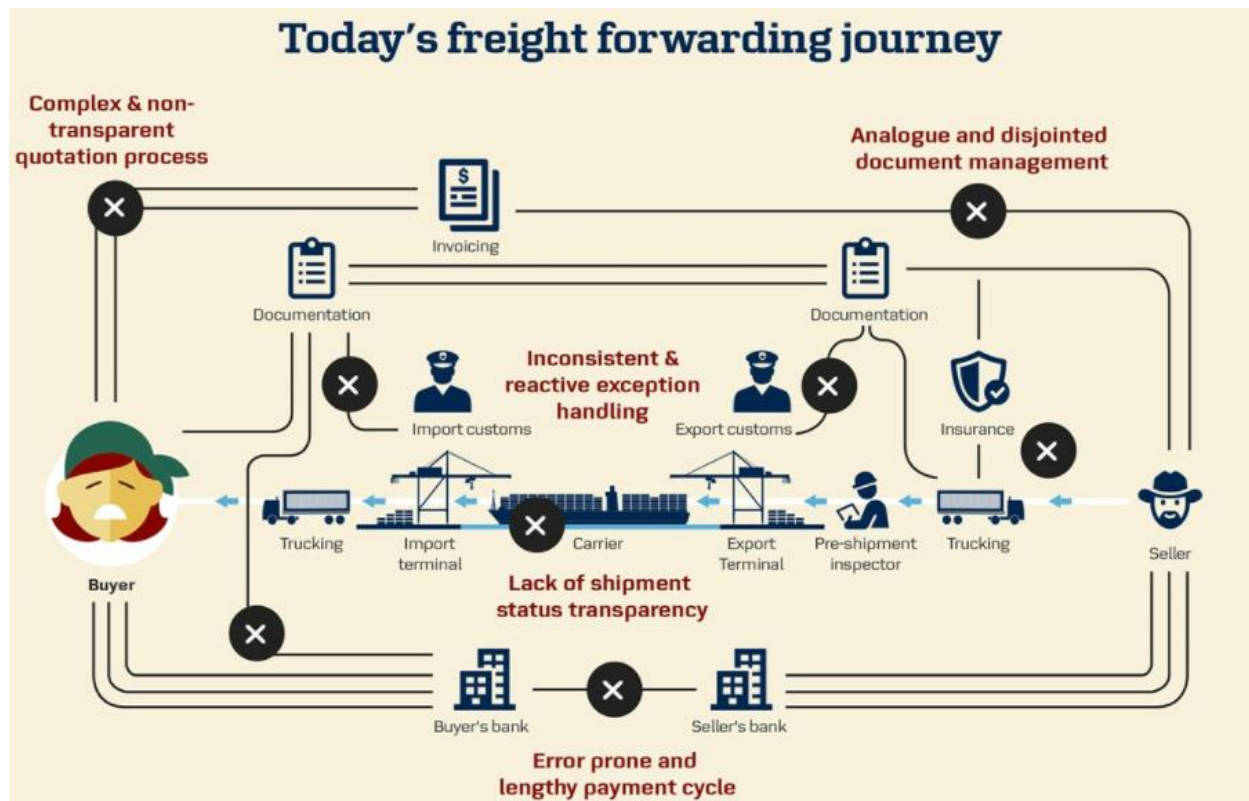
1. **Fuel Costs**. Fuel cost is one of the highest contributors in the supply chain. The overall supply chain cost will be increased due to the higher fuel cost. High volatility in the fuel costs across various countries has made it difficult for the supply chain providers to fix their logistics cost annually. Standardization of the fuel cost is the need of the hour to be a successful freight forwarder.
2. **Business Process Improvement**. Freight forwarding is a service driven industry and timely and correct information flow across several stakeholders in the value chain is very important to be successful. Lack of efficient Business process across the value chain is a major cause of concern.
3. **Improved Customer Service**. Customers in today’s world have become very demanding and want complete transparency of the movement of their shipment at all times. The location of the Package across several stakeholders is almost as interconnected as one’s social network. Also, the shipper want their goods as fast as possible and are not willing to pay extra for the service.
4. **Economy**. Higher fuel costs leads to increase in the overall supply chain cost .This leads to

Inflation which takes a great toll on the economy. To counter this situation, the logistics industry is further pressurized to increase the Compliance regulations which is like trade off with Profitability.

5. **Driver Shortage & Retention.** Retention and hiring still remains an issue irrespective of the demand especially in India.
6. **Government Regulations.** Freight forwarders and carriers are facing significant issues in regards to compliance and regulations imposed by the government.
7. **Environmental Issues.** The carbon emission (reduction) and other policies (such as scrapping of older vehicles) has increased the compliance cost significantly. This increase in the overall costs has made it difficult for transporters to operate businesses in a profitable manner.
8. **Technology Strategy & Implementation.** While the Logistics industry supports and encourages the support offered by Technological upgrade , still there is a concern on how will the logistics service providers pay for the implementations for overall improvement of the logistics sector.

BACKGROUND AND RATIONALE.

Lack of Business Synergies in the trade amongst the SME Freight Forwarders & Other stakeholders.



Freight forwarding is moving away from its original structure, built on extensive networks of local branches. To improve efficiency and service, the industry is evolving toward more centralized networks, with large platforms and hubs at the national and regional levels. Despite consolidation, this new model has not yet been fully adopted. In reality, many players still operate extensive local networks in the countries where they originally were based. Hence, SME Freight Forwarders are not in sync due to various factors in the Global Business Environment. SME Freight forwarders are as nervous about the future as any other type of company these days – and for good reason. It's hard to think of another industry facing more uncertainty with many of the macro-trends happening in the world right now. These challenges include everything from the impact of technology to the state of the global economy.

Alliances & Cannibalization of Ocean Carriers and MNC's.

Changes to container shipping alliances

from 1 April 2017



Source: BIMCO, Company websites

There are constantly new market challenges for SME Freight forwarders that need to be accounted for. A recent development we can see is the trend for ocean carriers to form alliances amongst themselves. With almost no notice, these can affect the rates and contracts that the freight forwarders have with the carriers. Furthermore Ocean Carrier- Maersk in a partnership with IBM had unveiled Trade Lens, a freight tracking platform supported by Block chain technology with the intent of promoting a more efficient, predictable and secure exchange of information which will most certainly address the issues surrounding lack of collaboration and trust across the global supply chain. Ocean carrier - APL had recently announced a successful test of a Block chain solution with Accenture. Keuhne + Nagel and a Europe based customs broker had been stakeholders while the test was being carried out. Ocean carriers-CMA CGM, OOCL, Evergreen Logistics (all three of which belong to the carrier alliance, Ocean Alliance), and Yang Ming, announced a partnership with Oracle Cloud Block chain Services to develop their own block chain-based freight management platform.

The above developments clearly show how the Ocean Carriers & MNC Freight Forwarders have

started to form alliances to enhance service standards. We shall soon see Ocean Carriers offering Last mile Delivery Solutions to the end User leading to cannibalization of Freight Forwarding .The aforementioned effect of technology is changing how forwarders can manage their business – as well as service their customers. Lastly, market expectations continue to focus on ever faster and cheaper deliveries.

Inaction & Dependence on various agents across the world for timely Information.



WCA (World Cargo association) is a SME Freight Forwarder Network which brings approximately 6000 Agents from 200 Countries in one platform. It is very difficult to identify the strengths and weaknesses of each of these agents. A German Freight Forwarder may nominate his valuable shipment from Mumbai to the WCA agent with the cheapest rate without knowing about his capabilities .With the Industry being extremely competitive, It is very difficult to identify who is strong in which sector, some Freight Forwarder may have a strong buying power to Middle East lane and the other may have a strong buying power to USA lane. In another case, some Freight Forwarder may have strong air freight rates and other may have a good infrastructure to handle transportation in the region. This may lead to service lapse due to Inaction or dependence on any of the agent.

Lack of transparency about capabilities and corresponding service level agreements amongst the partner Freight Forwarders.



Due to lack of structured and organized information for the SME Freight Forwarder, there is always a possibility of business being lost to a Multi-national company like DHL or Schenker due to higher rates. Furthermore, there can also be a possibility of compromised service levels if the Freight Forwarder does not have the infrastructure to handle the shipment. Freight forwarders are up against more competition than ever. Part of the reason is that many logistics companies that traditionally defined themselves as something else (say an as ocean carrier, or even a warehousing company) are now providing forwarding and NVOCC type services. And of course, everyone is talking about how even Amazon is getting in the game as well – which leads us to the next challenge.

RESEARCH QUESTION(S)

Will SME Freight Forwarder be able to match the rate and service Levels (Real time Information) of that of a Multinational Company using a common platform which can merge data points from different ERP's in a value chain?

Freight forwarding which has traditionally operating in a B2C model has been changing with an addition of multiple layers operating as a B2B Model. For example, if an SME Freight Forwarder has to execute a shipment to Jacksonville, United States from Nhava Sheva, Mumbai, India, he may opt to take the rates from a MNC Freight Forwarder like DHL purely due to their high buying power because of the volumes they handle both from their India as well as USA office. There is a significant amount of risk for the SME Freight Forwarder as there is no Non-Compete Contract which would safeguard him from the MNC Freight Forwarder getting in touch with the shipper directly for the next shipment. Matching rates with that of a global player like DHL is a big problem that the SME Freight Forwarder is facing in today's world. On an average the SME Freight Forwarder is losing at least 8 out of 10 shipments due to lack of service levels or higher rates, This is in addition to the risk of losing the business/ customer to a stronger player. There needs to be a mechanism to offer a strong platform to these freight forwarders (SME's) which would improve their buying power. Block chain implementation will not only allow SME Freight Forwarders across the world to handle shipments in smooth manner but will also allow them to leverage the strengths of their network partners to compete with the MNC Freight Forwarders. Using of historical data will also be extremely helpful in understanding the global trends.

Will the SME Freight Forwarder be willing to join a network who will provide such a platform?

Will the SME Freight Forwarder be able to absorb the transaction cost as well as all the relevant costs involved to building such a Digital Infrastructure? What will be the ROI?

An online network platform will involve a high maintenance cost. Will the SME Freight Forwarder be able to absorb such cost a big question? Although the cost will be spread across the SME Freight Forwarders using the platform, it will still be a significant cost for the Freight Forwarder to absorb in such competitive space. There must be a clear understanding of why such an ecosystem is required for the SME Freight Forwarders to look at the ROI.

RESEARCH METHODOLOGY:-

Survey. (Questionnaire as per Annexure 3)

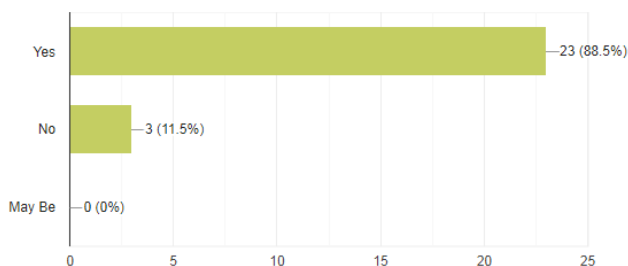
Purpose of the survey: - Purpose of this survey is to understand the challenges SME freight forwarders face in today's world and how technology such as Block chain will impact the freight forwarding Industry.

About the Survey: - Questionnaire as per the Annexure A will be circulated amongst the SME Freight Forwarders across the globe to understand their challenges in today's world and whether technology such as block chain will help impact the freight forwarding industry .

Findings and discussion:- The survey had been strategically circulated amongst a select few in the Logistics supply chain . The respondents are senior leaders belonging to various fields of the Value Chain such as Manufacturing, Transportation, Custom Brokerage, Exports.

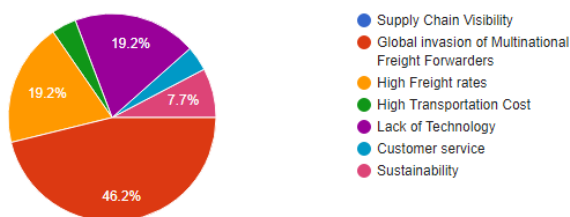
1.Will Technological Innovation have a positive impact for Freight Forwarders?

26 responses



2.Which of the below do you believe are top challenges SME Freight Forwarders face today?

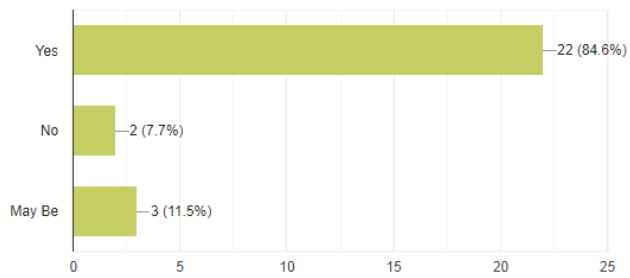
26 responses



3.Do you see Freight Forwarding industry moving the E-Commerce direction?

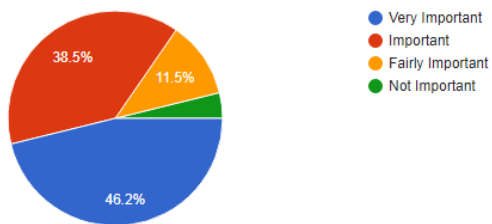


26 responses



4.How important is Digitization as a Strategy for the Freight Forwarders?

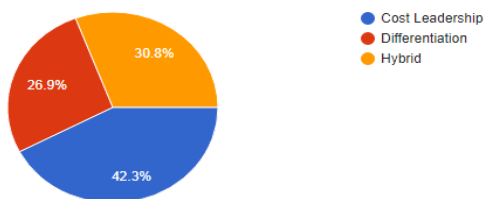
26 responses



5.What strategy will be more effective for the Freight Forwarder?

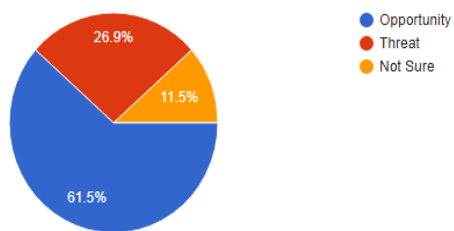


26 responses



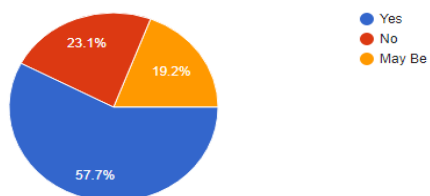
6. Your view point on Online Marketplace for Freight Forwarding?

26 responses



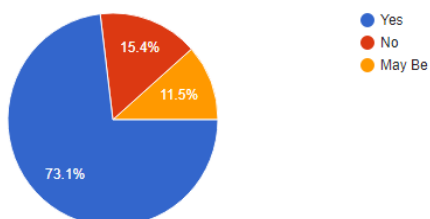
7. Shipper use Freight Forwarders as if it is commodity sales. Do you agree?

26 responses



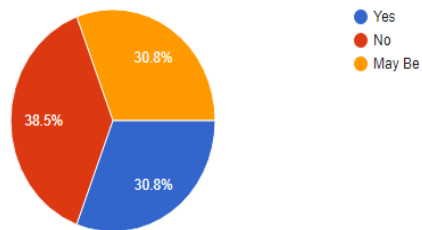
8. Do you believe having an Ecosystem of standardized rates & service for the logistics industry is necessary in today's world?

26 responses



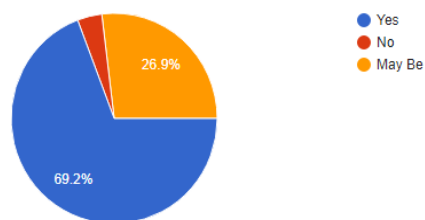
9. Do you believe the SME Freight Forwarders will be able to absorb the cost of a Digital Infrastructure to maintain the Ecosystem of standardized rates & Service?

26 responses



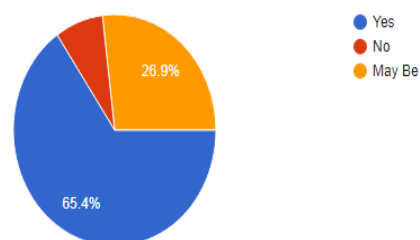
10. Will you be able to transfer the benefits of Block chain – Online Platform to the End User /Customer?

26 responses



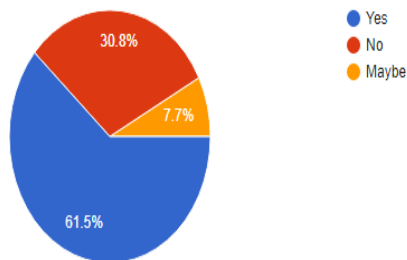
11. Do you believe there will be an improvement in visibility across the Value Chain by developing an online platform across various Stakeholders using Block chain?

26 responses



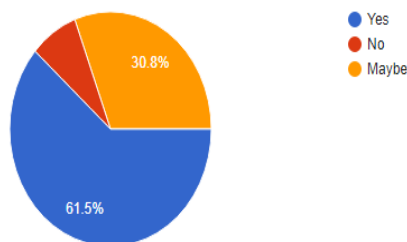
12.Traditional Freight Forwarding will become Obsolete. Do you agree?

26 responses



13 Do you believe Block chain will help in Re-Establishing ground for the SME Freight Forwarder?

26 responses



Interviews.

SME Freight Forwarder:-

Topic: - Insight on future of SME freight forwarders with the advent of technology – Karan Rambia – Green Earth Logistics.

A freight forwarder's role is to facilitate the movement of goods around the world, acting on behalf of importers and exporters. In addition to dealing with Customs organizations, preparing documentation and finding the best, cheapest or quickest routes, a forwarder also buys and sells space

on board ships or airplanes.

The MNC freight forwarder had to offer something unique to compete with the Local understanding that the SME freight forwarders possess. To compete with the host of small, low overhead forwarders, these MNC's started leveraging their:-

- Global reach (Offering end to end solutions)
- Strong buying power.
- IT & ERP systems
- Knowledge capital
- Other value added service capabilities.

Unfortunately for SME Freight Forwarder, these developments has made the global business environment fiercely competitive. The SME freight forwarder has to offer extra value added services to sustain and increase their profitability.

Technology has the capability of significantly increasing the profitability of SME freight forwarders around the world. The SME freight forwarder need to leverage technology and look to upscale its buying power, reduce its overall overheads, and look to hire highly trained staff .

Silver Lining – Where the SME freight forwarders still have an edge over MNC's?

- Fairly Centralized communication lines with the clients.
- Highly optimized management of operations cost.
- Customer Centric focus.
- Flexibility in operations.

Stake holders of SME Freight Forwarders- Exporter: - Raychem RPG.

Topic: - How will Block chain revolutionize your area of Business?

Raychem RPG is working on block chain which will be the future communication system for all type of businesses.

Coming years we can see block chain will take place of emails, mobile, telephones, FAX and other communication system.

This will be a very strong platform for communication in international trade where distance and time zone is an issue.

If I want to speak on benefits of block chain for my company, immediately I can point out few of them

1. Real time update to customer
2. Reduce inefficiency
3. Reduce follow up time
4. Reduce dependency on particular person
5. More transparency in whole transaction

If India want to adopt this communication method, we should have very strong IT infrastructure which will take care of this huge data base.

I believe every company should start to build their IT infrastructure and same time government of India also need to work on spread IT infrastructure all over the India, when I say all over India which includes rural and remote places too.

With best regards,

Amit Chavan --Manager - International Logistics



Stake holders of SME Freight Forwarders- Custom Broker : - Green Earth Shipping.

Topic: - How will Block chain revolutionize your area of Business?

Customs Brokers are an important link to the Importers& Exporters .Traditionally, Custom brokers have multiple lines of communication in the logistics value chain leading to verifications and errors at all stage of clearance. This has led to a higher probability of failure to meet the deadline for custom clearance. These errors could include Shipping documents error, Miscommunication by Customer, Filing errors by Custom broker , Short landing of material , Damage of material , time lapse, delays in receiving dues to custom broker.

The above scenario is fast changing due to involvement of technology with the customs as well as transport. From the perspective of a customs broker, Block chain will help bring all stakeholders like Shippers, Customs Stations, Port Community Systems, Customs Brokers, Shipping Lines,

Transporters, Banking Systems and Customers in one platform. This amalgamation would eventually help in achieving more transparency in trade.

Benefits of Block chain for Customs Broker.

- Transparency in documentation.
- Transparency in goods imported.
- Monitor real time movement of goods.
- Reduction in dual time.
- Reduction in Frauds.
- Detection of theft.
- Monitoring performance history of all stake holders in the Value chain.
- Improve compliance.
- Minimum communication with shipping lines.
- Reductions in errors with respect to data feeding & data matching.
- Confidence in dealing with Customers.
- Knowledge of creditability of the customer.
- Improves payments and Business process.

India has been making attempts to bring all the stake holders under one roof using technology .Few of the recent steps involves:

1. Compulsory digital signature to documents submitted to customs.
2. E-Sanchit – Digital uploading of all documents online, thus reducing any fraud during the process.
3. Introduction of single window – bringing in all PGA’s (participant government agencies) like FSSAI, ADC, etc. under one roof.
4. Port Community System –(PCS)
5. Sea Manifest Regulation.
6. ICE DASH – Daily performance tracker for Imports in India.
7. ATITHI APP for filing customs declaration for travelers visiting India.

International supply chain has lots of complexity as it involves country wise trade barriers, restrictions, tariff complexity, thus implementation of Block chain for customs broker will take some time. But, it’s the future where the Customs Broker needs to re-invent themselves to sustain with changing technology.

Stake holders of SME Freight Forwarders- Transportation organization : - DHL Ecommerce

India LLP

Please find the benefits which can be expected by the use of Block chain in the Indian Logistics and Supply Chain Ecosystem.

- Optimizing tracking of fleet or vehicle performance are key aspects which can be deduced by fleet owners to optimize operating cost.
- IOT devices enable data analytics which when combined with Block chain would enable deeper insight to data.
- Load Board Accuracy: Many companies place their requirements on the load portals. Block chain helps to avoid duplicity and enables proper operational flow.
- Smart Contracts will help to reduce cost and eliminate brokers or aggregators which enables the users to use the services judiciously
- Block chain will helps to Increase cash in hand in supply chain movements.
- Payment and dispute resolution: New Block chain-enabled platforms will allow easy coordination of documents on a shared distributed ledger, making physical paperwork largely unnecessary.

Regards

Gaurav Sanghi

DHL Ecommerce India LLP

Stake holders of SME Freight Forwarders- Importer : - European perfume Works Co LLC

Hi Sunil,

Block chain is definitely the necessity of the near future and is extremely necessary for all major industries which have direct access to the consumer.

It is the world of digital technology and this certainly has made the consumer increasingly knowledgeable. Block chain technology would therefore contribute to :

- a) Chronological Historical data
- b) Integrity and security of product information
- c) Avoid Adulteration
- d) Ensure Traceability
- e) Ensure Transparency
- f) Ensure consumers being confident about their purchases as due to traceability they would be confident about their purchase and would come to know from where their products come from and from what they are made of

- g) Modify existing software to capture data of each individual material used for production and the finished batches as well. This would lead to a factor of trust being replaced by SURETY as over claim will have to be totally avoided

For Block chain model to succeed, it has to remain independent as nothing should be hidden from the consumers

Best Regards,

Rajesh Rajan

Manager – Purchase

European Perfume Works Co

LLC

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Please click on any of the links below for more info;



PLAN OF WORK & TIME SCHEDULE:-

<u>PLAN OF WORK & TIME SCHEDULE:-</u>			
04-Nov	11-Nov	18-Nov	25-Nov
Synopsis			
	Questionnaire		
		Responses & Analysis	
			Final Project Submission

Conclusion:-

Expected Outcomes and Implications:

We would like to look at the proposition of establishing a business network for the SME Freight Forwarders which will offer seamless services and competitive rates to them as well as the end user i.e. Importers & Exporters (this is more of a value addition). The network's focus is to allow the associates to have seamless interaction for smooth pick up's and deliveries for the end user. The data collected by the business network will be structured and evaluated on yearly basis to further enhance the business of the SME Freight Forwarder. Benefits of such business network will be further elaborated based on the findings of the below.

- The proposed business network is feasible for the target market.
- Implication on revenue for the SME Freight Forwarder.
- Cost to end user/ Customer.
- Improvement in visibility which will further enhance the industry/ business standards.

Recommendation:-

India has ratified the WTO Agreement on Trade Facilitation (TFA) recently (April 2016). However, the government has been formulating policies regarding the enhancement of trade facilitations for quite some time now. The government realizes the importance of trade and has always looked to facilitate and encourage exporters with favorable climate to run their businesses. There are schemes like EPCG (Export promotion capital goods) and MEIS (Merchandise Exports from India Scheme) initiated by the government of India through the foreign trade policy which provides an incentive for the shipments exported. This is primarily because the exporters help bring in Foreign remittance which benefits the country's economy. In order to optimize the gains of trade facilitation, an action plan containing specific activities to further ease out the bottlenecks to trade is required to be in place. The overall vision of the Government to see India as an active facilitator of trade provides the foundation for an integrated roadmap for trade facilitation. Logistics costs will play a big role in trade and government must look to initiate policies incentivizing the Logistics service providers (LSP) which will assist in boosting the economy.

At present, the logistics division (as part of the Department of Commerce) is mandated to develop an action plan for the logistics sector in the country by way of policy changes, improvement in existing procedures, identification of bottlenecks and gaps, and introduction of technology. However, there is

no single department to look at all the aspects related to logistics covering various modes of shipment such as sea, roads and railways.

Currently logistics sector falls under the Commerce Ministry. Looking at contribution Logistics sector has provided in the last decade, e commerce and industry ministry has proposed creation of a separate department for trade facilitation and logistics for better coordination among different government agencies. India's logistics and transportation costs are pegged at 14.4% of the gross domestic product, much higher than China's 8%. This can be mainly attributed to lack of technology and infrastructure.

. There is a need for more research to be conducted in regards to how the government can facilitate the reduction in Logistics and transportation costs by leveraging the local expertise of Logistics service providers (LSP's) in building a strong infrastructure across the country. Government must take initiatives to improve the conditions of the SME Freight forwarder by bringing in limitations on FDI's for logistics.

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ANNEXURES

List of Annexures –

Annexure 1 - Plagiarism report (minimum first three pages)

Annexure 2 - Code of Ethics – Signed by student

Any other Annexures that are applicable for the ABR report

Annexure 1

Plagiarism report

Annexure 2

Code of Ethics

Application and Scope: Applies to all the students and research supervisors of SPJSGM on their conduct during their association with the institute across the geographies where SPJSGM operates. This is to be interpreted in conjunction with the laws of the land.

1. The Research Code of Ethics abides the individual to be
 - a. Socially Responsible, fair and tolerant
 - b. Law Abiding
 - c. Respecting Culture and ethnic diversity
 - d. Cooperating with authorities
 - e. Helpful to Fellow students
2. Performance Improvement: Students will consciously endeavor to achieve higher levels of performance and will strive towards self and institutional development.
3. Professional Conduct: Students are expected to behave in an amicable manner and exhibit a professional conduct. Any form of anti-social or anomalous behavior is not acceptable. Discrimination in any form will call for disciplinary action.
4. Students are to conduct themselves with Honesty and Integrity. Any form of corruption will result in immediate suspension and dismissal.

5. Approvals: The students will obtain all the necessary approvals and will seek necessary permissions for the research activity.
6. Infringement of copyrights and Intellectual Property in any form will call for a disciplinary action and dismissal.
7. Confidentiality: Preserving the Confidentiality of all the privileged and propriety information. Confidential information must be used only for the purpose of which it was made available.
8. Publication: No student researcher can publish any article, report or the product of research in any form without the permission of concerned parties.
9. Conflicts: Any type of interpersonal or professional conflicts should be avoided. In case of any perceived conflict, it is the duty of the student to bring it to the notice of the supervisor
10. Disclosures: Students are required to make necessary disclosures before a research engagement. This may include situations such as: conflict of interest, existing relationships with the party etc.
11. Liabilities: Student researcher cannot hold unlimited liabilities for the research work with an organization. They should be conscious to avoid joint liabilities involving SPJSGM as a party or unlimited liabilities on themselves.
12. Student researchers have their primary responsibility towards the academic research and the deployed students are not allowed to pursue any commercial activity with the engaging companies. Also, commercial exploitation of available information, research and its by-products is prohibited.
13. Misrepresentation of facts, identities and impersonation shall result in disciplinary action.
14. Students are expected to be fair and prudent in their dealing with human subjects wherever it occurs in the course of research. This includes, knowing personal preferences, orientations etc. Also influencing or canvassing in any form is not allowed.
15. Giving or taking any form of gift, benefit or favor from the research activity is prohibited. Exchange of cultural pleasantries must be informed to the project supervisor. This excludes sundry and operational reimbursements from the client company.
16. Research Supervisors are expected to deploy the students in a fair manner ensuring against any form of discrimination, abuse or exploitation by concerned parties.
17. Supervisors cannot accept any monetary incentive for the research from companies and cannot claim Intellectual Property rights emerging out of their access to client specific information during the course of research.

18. Sponsored researches or paid-internship deployments, if any, will have to be identified and approved separately.

19. This code is enforced by a committee which will be empowered to recommend the remedial actions and disciplinarily proceedings against the persons involved. The committee is constituted by the SPJSGM management.

20. Student/teams are required to sign and submit a copy of this document to the program office and corporate mentor. For all regulations, the decision of SPJSGM Management will be final.

Student details:

Name: Sunil Veeramani Iyer

Roll. No. EMU4180832

[Enter Names and Sign]

Date-----

Annexure 3: Survey Questionnaire

- 1 Will Technological innovation have a positive impact for Freight Forwarders? (Y,N, May Be)**
- 2 Which of the below do you believe are top challenges SME Freight Forwarders face today?**
 1. Supply Chain Visibility
 2. Global invasion of Multinational Freight Forwarders
 3. High Freight rates
 4. High Transportation Cost
 5. Lack of Technology

6. Customer service
7. Sustainability
- 3 Do you see Freight Forwarding industry moving the E-Commerce direction? (Y,N , May Be)**
- 4 How important is Digitization as a Strategy for the Freight Forwarders? (V Important , Important, Fairly Important ,Not Important)**
- 5 What strategy will be more effective for the Freight Forwarder?**
 1. Cost Leadership
 2. Differentiation
 3. Hybrid
- 6 Your view point on Online Marketplace for Freight Forwarding?**
 1. Opportunity
 2. Threat
 3. Not sure
- 7 Shipper use Freight Forwarders as if it is commodity sales. Do you agree? (Yes, No, May Be)**
- 8 Do you believe having an Ecosystem of standardized rates & service for the logistics industry is necessary in today's world? (Yes, No, May Be)**
- 9 Do you believe the SME Freight Forwarders will be able to absorb the cost of a Digital Infrastructure to maintain the Ecosystem of standardized rates & Service? (Yes, No , May be)**
- 10 Will you be able to transfer the benefits of Block chain – Online Platform to the End User /Customer? (Yes, No, May Be)**
- 11 Do you believe there will be an improvement in visibility across the Value Chain by**

developing an online platform across various Stakeholders using Block chain? (Yes, No, May Be)

12 Traditional Freight Forwarding will become Obsolete. Do you agree? (Yes , No , May Be)

13 Do you believe Block chain will help in Re-Establishing ground for the SME Freight Forwarder?(Y , N , Maybe)