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KEY DRIVERS FOR SALES ON HIGH SEA TRANSACTIONS: ISM ENABLED EVIDENCE FROM INDIAN TRADING FIRMS

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Abstract

Trade benefits all and no nation is ever ruined by foreign trade. Globally, the policy makers have considered foreign trade as an engine of economic growth, employment generation and foreign exchange accumulations. Sales in High Sea Transaction, also known as High Sea Sales or "String Sales" which takes place beyond the territorial waters of the country of export and the country of import, are considered vital to the economic needs of developing countries like India for a variety of reasons. With disruptions in global supply chain operations due to global pandemic, protective national policies, country-specific trade policies, there is an increasing trend towards the High Sea Sales transactions. In this context, an Exploratory Pilot Survey is conducted to identify the key drivers/motivations for Sales on High Seas factoring feed of larger import firms, bankers, logistics practisurs and trade specialists. Subsequently, ISM enabled Modeling is leveraged to understand the key drivers shaping the Sales on High Seas Transactions in India. In this least researched area of prime importance for development and evolution of an enabling trading environment, this study provides insights on key drivers of HSS transactions based on relational mathematical techniques called Interpretive Structure Modeling (ISM). The study lays the base for future research in this unexplored area of trading in regulated markets of the developing countries like India.

JEL classification: M160, M210, C130, K290.

Keywords: High Sea Sales, ISM Modeling, Tax Benefits, Canalized Trade.

INTRODUCTION

Foreign Trade benefits all¹ as it helps improve product quality (Xun & Aseem, 2011) and product portfolio (Rothaermel, Hitt & Jobe, 2006) at competitive prices (Vytautas, 2008), increase product specialization (Peter Schott, 2004), achieve economies of scale (E. Helpman, 1981, Bernard et. al. 2007)), scope (Akermany, 2009), system and sophistication (Sanjaya, John, & Jinkang, 2006), an exogenous decrease in the trade costs, or an increase in the rewards of international economic transactions (Frieden & Rogowski, 1996), tap larger markets (Adu-Gyamfi & Korneliussen, 2013), leverage latest technologies (Zahra, Ireland & Hitt, 2017) in production operations and above all produce in a competitive environment at the lowest possible costs (Donkers, 2003). The consumers have wider choices of products and services and their living standards improve as they have access to the best and cost-effective products (Bhandari NC, 2008). No nation or civilization is ever ruined by trade (Petreski, 2011) rather the existence of human civilization is based on trade (Chaudhuri K. N, 1985). The benefits of free trade are widely discussed in the seminal literature of contemporary authors (Arvind P, 2018). He further argued that the benefits are especially great for emerging markets like India. Paul R. Krugman, (1979) rightly argued that the trade is driven by economies of scale, which are internal to firms. Because of the scale economies, markets are imperfectly competitive. Nonetheless, one can show that trade, and gains from trade, will occur, even between countries with identical tastes, technology, and factor endowments. Enhanced trade has ensured the peaceful coexistence of nations as economies are interdependent, interconnected and networked with each other (Woods N, 2000)). India cannot remain cut-off from these economic realities, and understanding of Sale on High Sea operations is of prime importance for us all (Ram S., 2020).

International trade is becoming far more complex, complicated, inter-connected (Iyer, 1999) and is being conducted in a highly volatile and ambiguous environment (Saleh, & Watson (2017). Covid-19 pandemic and resultant disruption(s) of economic activities and trade supply chains (Notteboom, Pallis, & Rodrigue (2021) has led to 'contagion call' for boycotting Chinese goods thus creating supply chain barriers in the world economic system (Biju, Biswajit & Partha, 2020). The emerging system will require the business methods, and techniques that facilitate the cost-effective, uninterrupted supplies of goods at the appropriate time thus reducing working capital requirements of manufacturing firms, making quality goods available at short-notices, and reducing the cumbersome procedures that involve imports from an another country.

1 Marian L. Tupy (2006): Free Trade Benefits All, Washington Times, January 3, 2006.

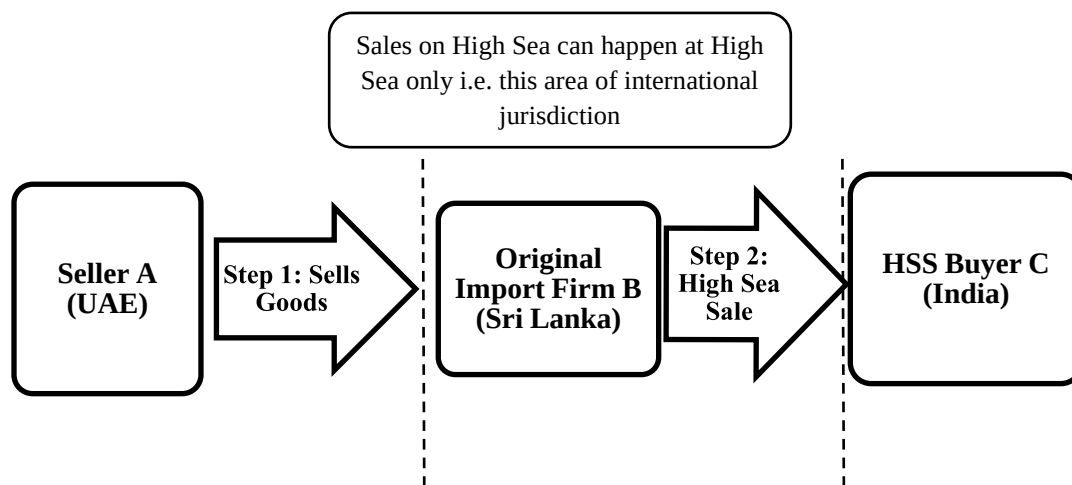
Appreciating the role of merchants in development of city states like Dubai, Fatma Al Sayegh (1998) rightly concludes that the merchants have no countries; they relocate wherever the business opportunities are. The merchants involved in the High Sea Sales (HSS) Transactions can help reduce such redundancies in the trade supply chain, and ensure the orderly and systematic development of the external sector globally. Under these challenging times of trade supply chain disruptions (Atif Saleem Butt (2021), the understanding of High Sea Sales (HSS) transaction is of paramount importance as it offers innumerable advantages to the traders. The relational mathematical techniques like Interpretive Structure Modeling can help understand the nuances of such least researched areas with the help of expert's opinions that are analysed with a proven ISM modeling technique (Rupesh, 2013).

This endeavor is aimed at designing a comprehensive base and clear guidance to future researchers in developing and presenting their research agenda for modeling the variables of Sales on High Sea Transactions by using ISM for improving the performance of the international trade operations.

UNDERSTANDING SALE ON HIGH SEA TRANSACTION

Conceptually; the Sales on High Seas transactions are the one which are carried out beyond the customs water of the country of imports as well as exports (CBIC-Circular No. 33 /2017-Cus). As a result, the applicable regulatory and tax regime on sales transactions is neither of country of export or country of import. Such sales can happen on international waters hence; don't invite the taxability of either of the countries⁴. High Sea Sales transactions in today's globalized world are reality as such sales fulfils the vital gaps in trade supply chains of the countries, making goods available at short notice, ensuring favourable price arbitrates, providing small quantities of goods and overcoming the challenges of the canalized trade regime of the country. In today's globalized but volatile and ambiguous trade supply chain operations; Sales on the High Sea is a common trade practice, accepted by law and facilitated by regulatory agencies as trade benefits all. In a HSS transaction, the original importing firm of goods sells the said goods to a third party before the goods are entered for customs clearance for home consumption in his own country or cross the territorial frontier of any other country. Diagrammatically; the sale on high sea transaction (Figure 1) can be understood as under:

⁴ High-sea sales to attract IGST only once, clarifies CBEC, The Hindu Business Line, January 27, 2018, <https://www.thehindubusinessline.com/economy/policy/highsea-sales-to-attract-igst-only-once-clarifies-cbec/article9799170.ece>

Figure 1: Overview of Sale on High Sea Process

Source: Ram Singh (2020): Sale on High Sea Transaction - Step by Step, Asher Publication, and ISBN No. 978-81-9466710-0

Ram Singh (2020) explains the dynamics of High Sea Sale (HSS) Transaction as a transaction wherein the original seller, for instance; based at Jebel Ali Port, Dubai sells the cargo to an importing firm based in Colombo, Sri Lanka. The importing firm based at Colombo receives the trade documents through proper banking channels and pays to sellers. By virtue of custody of trade documents involving Commercial Invoice, Packing List, and Bill of Lading, the transfer of title takes place in favour of an importing firm based in Colombo. The importing firm now becomes the owner of cargo, even if cargo is on High Sea, yet to be actually land in Colombo. The Sri Lankan merchant enters into a new deal with a buyer based in Mumbai for this vessel-laden cargo which is still on the High Sea. The final or penultimate buyer based in Mumbai, India is in dire need of this cargo and signs a High Sea Sale Contract with Sri Lankan suppliers. On the successful execution of Sales Contract and payment formalities, the ownership of the cargo is transferred in favour of Mumbai based penultimate importing firm, who clears the goods for domestic sales or enters into subsequent Sale on High Sea Transaction, also known as "String Sales".

Internationally, the regulatory framework for understanding the High Sea Sales Transactions lies in the UN Laws on Seas. The law of sea is defined by "United Nations Convention on the Law of the Sea" agreed among nations in 1982 which broadly classify the maritime zones into four broad areas wherein first, the *territorial waters* (Figure 2) of any sovereign country extend up to 12 NM i.e. 22.2 KM which is a distance from the exterior shoreline of a country. The outer shoreline refers to the beginning of this distance from the islands, which are not part of the main mass of land of the sovereign country. Hence, for India if any island is within 200 NM zones like Lakshadweep, the territorial water of India will extend beyond 12 NM and such area from a coast line that extends to such maritime zone, shall deem to be Indian Territory

for legal purposes. Second; the *Contiguous Zone* (Figure 2) of a sovereign country stretches a further of 12 NM beyond territorial waters (Beckman, 2013). Hence, it starts beyond territorial waters and can be a maximum of 24 NM from the baseline. Each sovereign country has limited maritime rights over contiguous zones than the rights they have over their territorial waters.

Figure 2: Concept of Territorial waters of India

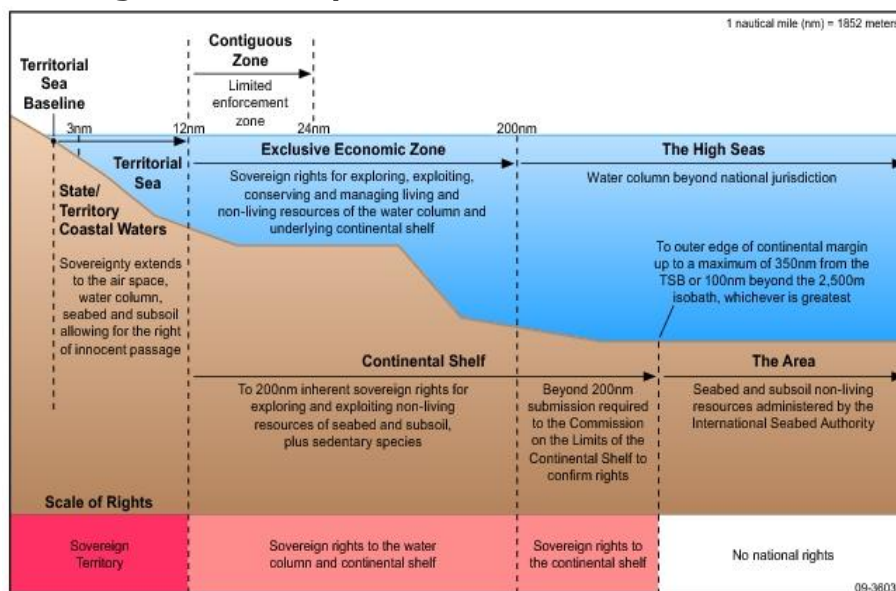


Figure 1: Offshore extent of the maritime zones recognized under international law

Source: Illustration of maritime zones defined by the UN Convention on the Law of the Sea, Credit: National Oceanic and Atmospheric Administration, U.S. Department of Commerce, accessed at <https://thewire.in/diplomacy/maritime-territory-continental-shelf-unclos-india>

Third, the *Exclusive Economic Zone* (Figure 2) of the country stretches a maximum of 200 NM from the country's baseline. EEZ starts from the shoreline of a country and extends up to 200 NM i.e. 370.4 Kilometers and includes the Contiguous Zone of a country. The EEZ is a part of the high seas subject to a special regime, under which the respective coastal states enjoy certain exclusive rights listed in the convention (Lupinacci, (1984). A country with Exclusive Economic Zone has control on economic resources within its exclusive economic zone, subject to the right of free navigation of other countries. The trend towards more extensive national authority over these ever-increasing areas has culminated in the 200-mile exclusive economic zone (Ball, 1996). In the case of landlocked countries, there are no rights for the Exclusive Economic Zone, meaning their international boundaries are limited to their land borders only (Juda, 1988). Fourth, the *International Continental Shelf* stretches 200 NM beyond the Contiguous Zone of the country. Article 76 of United Nations Convention on Law of Sea (UNCLOS) defines the "the continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea

throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance". Although; the area beyond Exclusive Economic Zone constitutes as a High Sea Area but for commercial purposes, the Sale on High Sea is any transaction which has taken place beyond the custom frontier of India. In India; the Custom Frontier is defined as a distance of 24 nautical miles from baseline i.e. any sales transactions beyond 24 NM shall be deemed to fall under purview of High Sea Sales.

Legally, the concept of High Sea Sales, in Indian context, finds its authority from Article 286 (1) (b) of the Constitution of India which states that no law of a State shall impose or authorize the imposition of, a tax on sales or purchase of goods where such sale or purchase takes place in the course of import of the goods into, or export of the goods out of the territory of India. Article 286 (2) further provides that the Parliament of India may, by law, formulate principles for determining when a sale or purchase of goods takes place in any of the ways mentioned above. Article 286 of Indian Constitution prohibits imposition of tax on the sale or purchase of goods in course of import of the goods into or export of the goods out of the territory of India. Constitutional Amendment has to be made to impose the Goods & Service Tax (GST); accordingly a new Article 246A has been added to Article 246 which gives power to Union and State government to make the law relating to matter covered under List I (Union List), List II (State List) and List III (Concurrent List). The Article 246 'A' (1) provide right to the Parliament of India and the Legislatures of each State(s) of India to enact law in respect of supply of goods and services. Article 246 'A' (1) gives power to the Centre and the State to levy Goods & Service Tax as per procedure, rules and regulations in force. Further, amendment has been made in the Article 269 with a new insertion of Article 269 'A' (Inter State Sale and Purchase). Article 269 (1) facilitates the levy and collection of tax on sale of goods or consignment of goods in the course of Interstate trade or Commerce. Now, the provision of this clause is subject to new article 269 'A'. As per Article 269A Goods and Service tax shall be levied and collected by the Government of India and apportioned between State(s) in the manner as provided in the law enacted by the Parliament of India, on the recommendation of GST Council. Additionally; the import of Goods or Services or both will also be equally treated as Supply of the goods and services in the course of Inter-State Trade or Commerce⁵. This will give power to the Central Government⁶ to levy Integrated GST on the Import Transaction instead of Countervailing Duties (CVD) levied under existing enacted legislation. *Commercially*; India allows Sale on High Seas under para 2.38 of the

⁵Authority for Advance Ruling under GST, Maharashtra, BASF India Limited-TIOL-82-AAR-GST dated 21st May 2018.

⁶ Same as 'federal government' in Indian Context.

Foreign Trade Policy 2015-21⁷, as framed and amended by the Director General of Foreign Trade, Ministry of Commerce & Industry, Government of India.

IDENTIFICATION OF KEY DRIVERS FOR HSS TRANSACTION & METHODOLOGY

The Sale on High Sea is yet one of the least researched areas as such transactions are mainly conducted in highly regulated developing countries of Asia, Africa and Latin America. There is limited existing research, posing challenges vis-à-vis literature reviews and subject matter contents, except some circulars, notifications as issued by governments and research articles mainly in the forms of blogs, column, advisory, guidelines and procedural clarifications. The literature is yet in evolutionary stages in various parts of the world, giving motivation to author to probe the key drivers for execution of Sales on High Sea Transactions. In order to probe and identify the key drivers of Sales on High Sea Transactions in India, an Exploratory Pilot Survey (EPS) is conducted with the following.

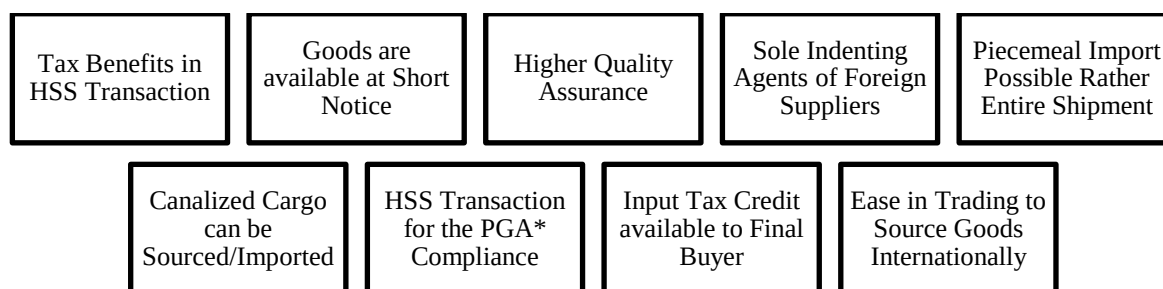
a. There are certain imports which are regulated by Government of India. Hence such goods are to be mandatorily imported by Notified Canalized Agencies of Government of India, such as Oil (Indian Oil Company, Hindustan Petroleum Corporation Ltd, Bharat Petroleum Corporation Ltd, Minerals and Metal Trading Corporation, State Trading Corporation of India, National Agricultural Federation (NAFED), PEC Ltd, and Fertilizer Corporation of India etc. The totals of 30 officials from these notified agencies are consulted in EPS for understanding key drivers/motivations for the Sale on High Sea Transactions.

b. Customs Brokers involved in Customs Clearance of Bulk Imported Cargo in India. A total of 10 Customs Brokers are consulted in EPS.

c. Managers of International Trading Houses, Logistics Experts, Business Experts. A feedback of 10 such officials/ managers is factored.

The findings of the EPS are shared with Business Experts, Logistics Heads, select Heads of Canalized Agencies, and some of the leading Customs Brokers. They concluded that the results are satisfactory; thus not necessitating the conduct of Confirmatory Pilot Survey. In the evidential findings of the Exploratory Pilot Survey, the key drivers for Sales on High Sea Transaction are listed as in Figure 3:

⁷ Page No. 17, Chapter 2, Foreign Trade Policy, 2015-20 as extended up to September, 2021, <file:///C:/Users/HP/Downloads/FTP%20Chapter2-Updated-26.06.2019.pdf>

Figure 3: Key Drivers or Motivations for Sales on High Seas in India

* Partner Government Agency

The EPS reveals that one of the key driver for the Sale on High Seas Transactions is *first*; the 'tax benefits' that an internationally engaged firm derives in sourcing or procuring goods at High Sea. A Circular No- 33/2017; dated 1st, August 2017 of Indian Customs has clarified that the Integrated GST will not be levied on sales occasioned in the course of import whether once or multiple times, except in cases when goods cross the custom frontier of India and Bill of Entry for clearance of goods is filed by the final importing firm. It results in saving of taxes for a penultimate buyer i.e. the final importing firm. The officials of notified canalizing agencies confirmed that the lower tax calculations, as a result of HSS transactions are the key motivator for Sale on High Seas. *Second*; the goods are available at short notice. With the growing nationalism in pandemic times, there is a visible trend to discourage the imports from certain country (ies) and regions. Instead of direct business deals, indirect routing of cargo through High Sea Sales is increasing. One of the prime benefits of engaging in High Sea Sale Transactions is that the final buyer can get goods at a short notice thus engaging less working capital in business operations. In case of imports, an importing firm may have to undergo following formalities resulting in higher time for sourcing of vital inputs required for business operations. The importing firms having lower exposure to global trading circles, banking channels and payment settlements, regulatory compliance and logistical issues prefer to buy goods on the Sale on a High Sea basis. The *third* key driver is that canalized cargo (State Trading Enterprise regime) cannot be sourced/imported directly and mandatorily to be sourced through the notified canalizing agency of the Government of India. Hence; Indian firms can buy goods from notified canalizing agencies for which they don't have legal permission to import directly. For example, Gold Trading Companies, like MMTC⁸ or STC⁹, buys a '*canalized items*' which otherwise cannot be imported by a normal trader in India as goods are under the 'State Trading Enterprise' (STE) regime of Schedule 1 (Import Policy) of India. The canalized import regime is far more prevalent in agriculture and other bulk cargo industries. STEs account for the significant shares of world trade in grains, dairy products, and sugar

⁸ Minerals & Metals Trading Corporation of India

⁹ State Trading Corporation of India

(Ackerman & Dixit, 1999). One can buy such goods from the Canalizing Agencies, on a High Sea Sale basis and ensure saving in taxes in import operations.

Fourth, the key driver as probed in EPS is the possibility of 'piecemeal imports' of small quantities rather than buying an entire shipment. The inherent beauty of High Sea Sale transactions is that a large importing firm, having adequate knowledge of goods quality, prices, trading circles and logistics operations, buy large quantities of goods at comparatively low prices as the bulk importing firms usually have sound knowledge of business and above all; there is price arbitrage due to bulk buying. Such large importing firm can subsequently sell these goods to large no. of buyers on High Sea Sale basis, thus offering competitive prices for such piecemeal sales to HSS buyers. For instance; Coal India Ltd and Adani Enterprises Ltd buy large quantities of Coal and sell it in piecemeal to large no. of Indian traders engaged in the similar line of business in various states of India. Hence; a HSS transaction offers the benefits of '*Price-Arbitrage*' of low prices, short notice and piecemeal sales. The *fifth* is that the facility of Sole Indenting Agents of Overseas Suppliers. Sole Indenting Agents are also known as buying agents or purchasing agents who may work as an individual or business firms and offer to buy goods on behalf of another party from international markets. An indent is defined as an order for goods under the specified conditions of sale. Indenting agents are common for all kinds of products, from raw material commodities through to specialized and customized equipment in today's interconnected, networked and interdependent trade operations. Sole Indenting Agent, for example, of a radioactive item for use in college labs, will book orders and procure the goods from the original equipment manufacturers and then transfer them on a High Sea Sale basis to ultimate buyers. Due to regulatory compliance of radioactive items, such products cannot be directly sold in the open markets as there is compliance for sale, use, and disposal of such items by the Regulatory Agencies in India. The success of Sole Indenting Agents lies in their belief in giving the best services and does business very transparently between their buyers and the original equipment manufacturers. *Sixth* driver for Sale on High Seas is that of availability of Input Tax Credit to the Final Buyer. The HSS buyer can claim the benefit of lower IGST Input Tax Credit directly from Indian Customs thus making the transaction beneficial for him. *Seventh*; there is assurance of committed quality of goods. The essential concern of any importing firm is that of quality issues related to goods as the exporting firm sometimes may, cheat buyers by sending the inferior quality of cargo. The Sale on High Sea procurement and sourcing ensures the quality assurance to the penultimate importing firm. *Lastly*, the importing firms in India enter into High Seas Sale Transactions for ensuring Partner Government Agency (PGAs) compliance and to have an ease in import operations.

ISM-ENABLED MAPPING OF THE SIGNIFICANCE OF KEY DRIVERS FOR HSS TRANSACTION

Interpretive Structural Modeling (ISM) was proposed by John N. Warfield (1974) and is a computer-based technique for aiding importing firms to develop graphical representations of complex systems (Janes, 1988) for logically mapping the decision ladder based on the identified decision variables matrix. Interpretive Structural Modeling (ISM) is a well-established methodology, leveraging relational mathematical models, for understanding the significance of key drivers for a business resolution; which defines a problem or an issue or shaping of a decision (Attri et. al, 2013). For any complex issue like what are the key drivers shaping the motivations for a HSS transaction in India, ISM Modeling is an effective research model to understand the inherent nuances, based on the expert's feedback, and duly validated by ISM. ISM modeling enables us to probe those complex issues by factoring the feedback (Waller, 1982) of Business Experts, Logistics Heads, selects Heads of Canalized Agencies, managers of select Trading Houses, and some of the leading Customs Brokers. ISM Modeling helps establish the direct and indirect relationships between the factors to describe the situation far more accurately than the individual factors taken into isolation (Singh, Garg & Deshmukh, 2007). Hence, ISM develops insights into collective understandings of these relationships. ISM was found to provide its users with a systematic and comprehensive method for integrating group judgments in the development of "first-cut" structural models (Watson (1978). The combined feedback of collective insights of 50 experts from business, logistics, Canalized Agencies, managers of select Trading Houses, and some of the leading Customs Brokers is collated in SSIM Matrix as provided in Table 1.

STRUCTURAL SELF-INTERACTION MATRIX

The feedback of the export firms along with involved stakeholders has been collected, collated and comprehended to understand the key drivers for Sales on High Seas Transactions in India. The pairs of variables are compared so as to understand the direct and inverse influence of one on another or each other or neutrality. The following 4 conditions arise when comparing any 2 sets of variables:

a. V: Variable A1 influences variable A2, but the relationship doesn't hold true the other way round

b. A: Variable A2 influences variable A1, but the relationship doesn't hold true the other way round. It is important to note here that conditions V and A are opposite to each other and cannot be simultaneously satisfied for any set of 2 variables

c. X: Both variables A1 and A2 influence each other i.e. the relationship holds true both ways

d. O: Neither of the variables A1 or A2 have any noticeable influence over each other.

Any two pairs of variables satisfy either of the four conditions. Based on the evaluation of all pairwise relationships, the Structural Self-Interaction Matrix (SSIM) Matrix is prepared as provided in table 1.

Table 1: Structural Self-Interaction Matrix: Collated Feedback of 50 Trade Sector Experts

	Tax Benefits in HSS Transaction	Goods are available at Short Notice	Higher Quality Assurance	Sole Indenting Agents of Foreign Suppliers	Piecemeal Import Possible Rather Entire Shipment	Canalized Cargo can be Sourced/ Imported	HSS Transaction for PGA Compliance	Input Tax Credit available to the Final Buyer	Ease in Trading to Source Goods Internationally
Tax Benefits in HSS Transaction	X	0	0	0	0	0	0	X	0
Goods are available at Short Notice		X	V	0	X	X	0	0	X
Higher Quality Assurance			X	A	0	X	0	0	V
Sole Indenting Agents of Foreign Suppliers				X	X	X	0	0	X
Piecemeal Import Possible Rather Entire Shipment					X	X	0	0	X
Canalized Cargo can be Sourced/Imported						X	0	V	X
HSS Transaction for PGA Compliance							X	0	0
Input Tax Credit available to the Final Buyer								X	A
Ease in Trading to Source Goods Internationally									X

Post establishing the SSIM Matrix, it is converted to a Reachability Matrix. The Reachability Matrix is derived from the SSIM Matrix and is a Boolean matrix consisting of only 1s and 0s as entries across the cells of the matrix. The entries V, A, X, O from the SSIM Matrix are replaced by 1s and 0s by following the below mentioned steps: (consideration is made to random variables i and j for comparison purposes to avoid confusions).

- a. V:** Variable i influences variable j, but the relationship doesn't hold true the other way round.

The entry a_{ij} in the SSIM Matrix is replaced by **1** and the entry a_{ji} is replaced by **0**, thus satisfying the conditions contained within V

- b. A:** Variable j influences variable i, but the relationship doesn't hold true the other way round.

The entry a_{ji} in the SSIM Matrix is replaced by **1** and the entry a_{ij} is replaced by **0**, thus satisfying the conditions contained within A

- c. X:** Both variables i and j influence each other i.e. the relationship holds true both ways.

Both the entries a_{ij} and a_{ji} are replaced by **1** in the SSIM Matrix, thus satisfying the conditions contained within X

- d. O:** Neither of the variables i or j have any noticeable influence over each other.

Both the entries a_{ij} and the entry a_{ji} are replaced by **0** in the SSIM Matrix, thus satisfying the conditions contained within X

This leads to the development of the Initial Reachability Matrix from the SSIM Matrix as shown in table 2 as under.

Table 2: Reachability Matrix for Key Drivers of High Sea Sales Transactions in India

	Tax Benefits in HSS Transaction	Goods are available at Short Notice	Higher Quality Assurance	Sole Indenting Agents of Foreign Suppliers	Piecemeal Import Possible Rather Entire Shipment	Canalized Cargo can be Sourced/ Imported	HSS Transaction for PGA Compliance	Input Tax Credit available to the Final Buyer	Ease in Trading to Source Goods Internationally
Tax Benefits in HSS Transaction	1	0	0	0	0	0	0	1	0
Goods are available at Short Notice	0	1	1	0	1	1	0	0	1
Higher Quality Assurance	0	0	1	0	0	1	0	0	1
Sole Indenting Agents of Foreign Suppliers	0	0	1	1	1	1	0	0	1
Piecemeal Import Possible Rather Entire Shipment	0	1	0	1	1	1	0	0	1
Canalized Cargo can be Sourced/Imported	0	1	1	1	1	1	0	1	1
HSS Transaction for PGA Compliance	0	0	0	0	0	0	1	0	0
Input Tax Credit available to the Final Buyer	1	0	0	0	0	0	0	1	0
Ease in Trading to Source Goods Internationally	0	1	0	1	1	1	0	1	1

Now, transitive links are identified within the Initial Reachability Matrix. The identification of transitive links is only carried-out until level 1 for the case of simplicity and to avoid the replacement of all entries in the Initial Reachability Matrix by the Boolean value 1. To identify transitive links, the following process is carried out:

a. If a variable 'A' influences a variable 'B', which further influences a variable 'C', it leads us to a very simple conclusion, that the variable A should have a considerable influence over the variable C, thus establishing transitive links between the two variables.

b. Understanding this from a mathematical aspect, if the entry a_{ij} and a_{jk} in the Initial Reachability Matrix is **1**, one can conclude that the entry a_{ik} would also be **1**, through the evaluation of transitive links.

c. If the variable A influences a variable B, but the variable B further does not influence another variable C, one can conclude that the variable A would not influence variable C.

d. Evaluating the same mathematically, if the entry a_{ij} in the Initial Reachability Matrix is **1** and the entry and a_{jk} is **0**, one cannot establish a transitive link from i to k and can conclude that the entry a_{ik} would remain **0**.

After all the transitive links have been evaluated similarly for all the rows and columns, in table 3, one can get the Final Reachability Matrix (with the Transitive links).

Table 3: Reachability with Transitivity for Key Drivers of High Sea Sales Transactions in India

	Tax Benefits in HSS Transaction	Goods are available at Short Notice	Higher Quality Assurance	Sole Indenting Agents of Foreign Suppliers	Piecemeal Import Possible Rather Entire Shipment	Canalized Cargo can be Sourced/ Imported	HSS Transaction for PGA Compliance	Input Tax Credit available to the Final Buyer	Ease in Trading to Source Goods Internationally
Tax Benefits in HSS Transaction	1	0	0	0	0	0	0	1	0
Goods are available at Short Notice	0	1	1	1*	1	1	0	1*	1
Higher Quality Assurance	0	1*	1	1*	1*	1	0	1*	1
Sole Indenting Agents of Foreign Suppliers	0	1*	1	1	1	1	0	1*	1
Piecemeal Import Possible Rather Entire Shipment	0	1	1*	1	1	1	0	1*	1
Canalized Cargo can be Sourced/Imported	1*	1	1	1	1	1	0	1	1
HSS Transaction for PGA Compliance	0	0	0	0	0	0	1	0	0
Input Tax Credit available to the Final Buyer	1	0	0	0	0	0	0	1	0
Ease in Trading to Source Goods Internationally	1*	1	1*	1	1	1	0	1	1

This is followed by the preparation of Iteration Matrix through level partitioning of the various variables under consideration. The table contains 5 columns namely Variables, Reachability, Antecedents, Intersection and Levels.

a. The first column contains the variables A1 through A12

b. The second column **Reachability** contains all the variables, a particular variable under consideration is reaching out to or influences, this can be evaluated by considering all the 1s across the row containing the variable under consideration in the Final Reachability Matrix.

c. The third column **Antecedents** contains all the variables which have the ability to influence or reach out to, a particular variable under consideration. This can be evaluated by considering all the 1s across the column containing the variable under consideration in the Final Reachability Matrix.

d. The fourth column **Intersection** simply lists out the intersection set between the columns Reachability and Antecedents.

e. The variable / variables with **Intersection Set** equal to **Reachability Set** are assigned to **Level 1** and are eliminated from the rows containing the remaining variables currently not assigned to any particular level (namely, Reachability, Antecedents and Intersection columns). It is important to note here that multiple variables can be assigned to a particular level, thus concluding that they have a similar influence in the hierarchy structure of the complex problem at hand.

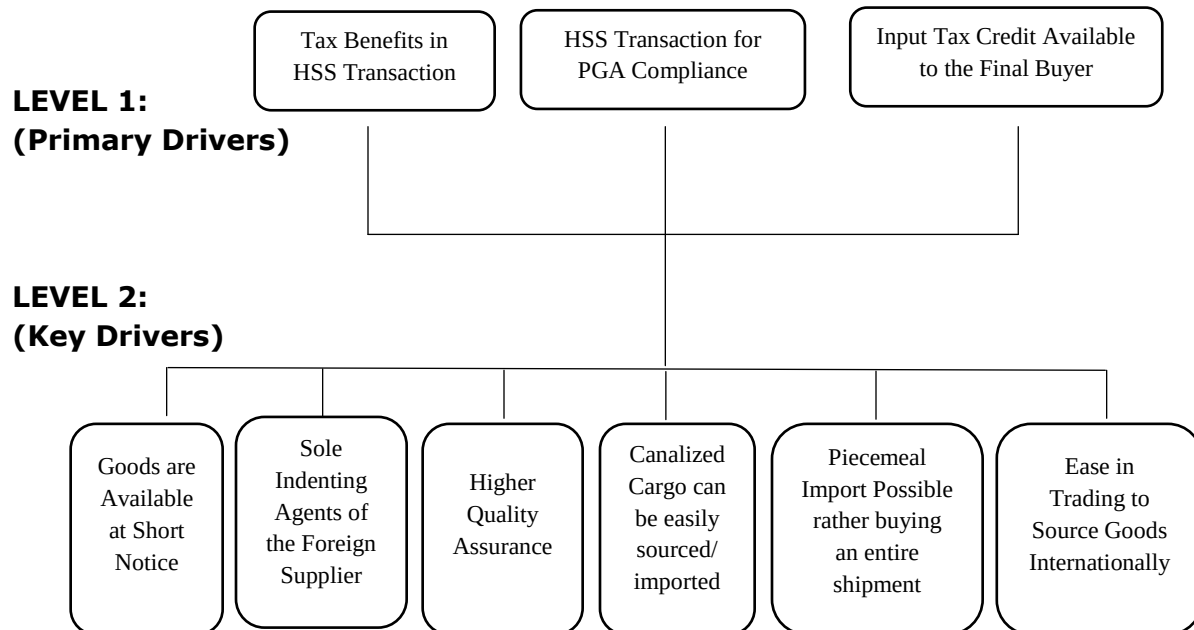
f. The same process is repeated for the remaining variables evaluating the similarity of the Reachability Set with the Intersection Set and the variables are accordingly assigned to increasing levels viz **Level 2, Level 3 and Level 4**. It is important to remove the variable / variables which have been assigned to a particular level from the rows containing the remaining variables.

In our case, the Iteration Matrix is split into 4 Levels with variables **A1, A2, A3, A8, A9, A10** being assigned to **Level 1**, variable **A4** being assigned to **Level 2**, variables **A6, A7, A11** being assigned to **Level 3** and variables **A5 and A12** being assigned to **Level 4** respectively. One can now proceed towards establishing the Digraph from the Iteration Matrix thus formed in table 4.

Table 4: Iteration Matrix for Key Drivers of High Sea Sales Transactions in India

Variables	Levels
Tax Benefits in HSS Transaction	LEVEL 1
Goods are available at Short Notice	LEVEL 2
Higher Quality Assurance	LEVEL 2
Sole Indenting Agents of Foreign Suppliers	LEVEL 2
Piecemeal Import Possible Rather Entire Shipment	LEVEL 2
Canalized Cargo can be Sourced/Imported	LEVEL 2
HSS Transaction for PGA Compliance	LEVEL 1
Input Tax Credit available to the Final Buyer	LEVEL 1
Ease in Trading to Source Goods Internationally	LEVEL 2

The Figure 4 of key motivations for the Sales on High Sea Transactions can now be developed from the Iteration Matrix since; structured process is followed to clearly identify the levels the various variables belong to. The variables at a particular level are placed at the same hierarchy while those at a level higher than the level under consideration are placed below them, while those at lower levels are placed above the level under consideration. One can conclude that the figure 4 has 2 levels where the 9 variables under consideration are split apart as per their hierarchy rankings from the Iteration Matrix. Finally the nodes in the Figure 4 are replaced by the actual names of the variables i.e. variable **A1** is replaced by '**Tax Benefits in HSS Transaction**' and variable **A2** is replaced with '**Goods are available at Short Notice**' and so on for all the variables. This leads to the development of the final ISM Model for the complex problem statement under consideration, and clearly segregates the variables into various levels as per their capability to influence other variables and hierarchical influence.

Figure 4: Primary & Key Drivers/Motivations for Sales on High Seas Transactions in India

CONCLUSION

ISM enabled evidence for motivations for Sales of High Seas Transactions provides vital insights to understand the inherent reasons for this trade activity. Sales on High Seas Transactions are considered important for a variety of reasons for a developing country like India. The study concludes that key motivations for High Sea Sales (HSS) Transactions are *first*, the goods are available at short notice, a key consideration by the importing firms of a country like where import financing is a challenge including high cost of financing and limited period of financing. The importing firms in India get import finances at much higher rates than that of the export firms, a reduction in import cycle vis-à-vis goods available at short notice is important for Indian importing firms (trading houses/ canalized agencies) etc. involved in HSS transactions. Second, the HSS transactions also take place as some foreign firm's route their consignment only through Sole Indenting Agents (Radioactive Cargo for Associated Regulatory and Environmental compliance etc). Third, the HSS transactions are also popular as the final import firm is assured to quality supply of goods, already loaded on vessel, away from the territorial waters of the country of exports, thus assuring a trade deal with assurance of quality and compliance. Fourth, India trade regime is yet highly regulated, with some of the goods, can be imported only through notified canalized agencies. The final importing firm or domestic manufactures have no

choice except to source them at High Seas Sale basis from such HSS sellers. Fifth key motivation for the import firms is that they can buy a required small quantity of goods which are otherwise traded in bulk (coal, metals, mineral, lumber, fertilizer, cereal, oil & gas etc). Finally, the study concludes that it is the ease in import and sourcing operations that drives Indian import firms, trading houses, canalized agencies, etc to enter into Sales on High Seas Transactions. The study provides a cardinal base for future research in this least explored area which is a vital trading activity in regulated markets of the developing countries of Africa, Asia and Latin America.

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