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Cost Saving Tools with IT Integration in International Logistics Operations

Gaurav V. Suryawanshi [1], Chaitali P. More[2]

[1]MIT-WPU School of Management (PG), Pune.

[2] MIT-WPU School of Management (PG), Pune

[1,2]Department of Operation Management

ABSTRACT – Increasing attention has been made in logistics department about saving the freight and other logistics related costs. In this paper we have used a tool which contributes in saving the logistical cost in overall international import and export consignments. The IT integration in logistics is been the need of the era to survive in the competitive market globally. The use of GoComet portal which helps in negotiating with freight forwarder to gain the minimum freight cost compared to the market. This tool has been pilot tested in KOSO India. Pvt. Ltd. Nashik. a mechanical ETO (Engineered to order) industry to analyse and record the results of saving cost to the company. Based on the statistical analysis the results were concluded and been proposed in corporate to achieve better and efficient operations.

Key Words: Logistics, Gocomet, ETO, Freight cost, IT integration

INTRODUCTION

Initially, logistics was a military activity aimed at bringing troops and ammunition to the flight front in time, but it is now seen as an essential aspect of the contemporary operational cycle.

Over the past decades as the industrial revolution took place the supply chain became agile and responsive to meet the customer requirements in every nook and corner of the globe. This was made possible with integrating advance tools like artificial intelligence, blockchain, IT integrated logistics, robotic process automation and advance analytics. Without well-built transportation model, logistics cannot bring its advantage in full focus. In addition, in logistics operations, a good transport system could provide better logistics effectiveness and decrease operating costs and encourage the quality of service. Improving transport systems requires effort from both the private and public industries. A well operated logistics system could boost both government and business competitiveness.

Logistics services promote the motion of materials and products from inputs to customers through manufacturing, as well as related waste disposal and inverse flows. They include in-house activities conducted by service customers (e.g. storage or inventory control at the plant of a manufacturer) and internal service provider operations. Logistics services include both physical operations (e.g. transportation, storage) and non-physical activities (e.g. supply chain design, contractors choice, freight trading). Most logistics services operations are bi-directional.

LITERATURE REVIEW:

There is a growing willingness in the industry to accept start-ups using digital and other technology to improve their freight forwarding processes as it reduces the paperwork and human toil, and reduce costs as well as time. Among the start-ups that have emerged in recent years, the most prominent are Israel-based Freightos and iContainer of Spain. Others include Newcastle, England-based Kontainers; New York-based CoLoadX etc. These marketplaces operate through a very similar system Users have to input the origin and destination of a desired cargo movement, along with the date, cargo size and other information, into an online interface, and the information is analyzed and matched with a series of priced options provided in a list. The Freightos CEO Zvi Schreiber, who argues that the transparency of having rates accessible online forces forwarders and carriers to compete and pushes down prices. “Service providers like to discriminate in pricing. These Start-up’s add value in a way that they could help to “smooth out overall market volatility,” especially at the time of high rate swings, because carriers know they can use them to market

excess space if needed. A marketplace could also create value by helping to match carriers with small shippers.[1]

The paper focuses on how e-logistics and e-scm using various tools and techniques available in this digital world have changed the way logistics functioned and it has benefitted companies to compete against rivals and saved a lot of costs and time and tedious paper work needed in traditional functioning of logistics. The author have analysed the relation between competitiveness and e-logistics and its tools they have also discussed about DHL and its approach towards e-logistics for gaining a competitive advantage. E-logistics plays a major role in information sharing and information transparency within entire supply chain that influences its competitiveness. The author says that a key driver to e-SCM is coordination and integration among all the participants in the supply chain, primarily through sophisticated information systems and management software. They have explained about Supply Chain Software, Web and mobile applications, RFID, and Emerging digital tools. [2]

The blog explains that tendering is a very costly and timely process for all parties involved. The time, the effort and the expense for suppliers of answering a tender or bid, is estimated at upwards of $15,000 per tender. For a shipper, however, the expense in terms of time involved is enormous and the fact that carriers respond to as few as 20% of the tenders they are invited to participate. Shippers have to go through a tedious process for tendering and negotiations where the first step is to gather data, the next step is the RFQ/RFP, an RFQ/RFP, to suitable suppliers to participate in a cumbersome tender process that is usually managed either manually by spreadsheet. And the last step would be ranking & negotiations. Once potential suppliers have submitted their proposed tenders, the shipper then ranks them based on certain criteria, preferences that may vary from one participating business unit to the other that neither won't simplify the tendering process nor lessen the work needed to be put in. Freight contract negotiations can be costly both in terms of time and management they did a social media community survey on how shippers manage their freight negotiations and their responses were note as over half the responses, i.e. 57%use online platforms to manage freight negotiations while 29% use excel and 14% use something else. [3]

METHODOLOGY:

This research focuses on easily available methods that can leverage supply chain professionals within their worldwide supply chains to drive economic advantage. With this in mind, the methods mentioned do not involve substantial capital investment to be used for the usage for an organization in land, plant, machinery or systems.

For the research purpose the data collection was done using observational techniques and discussing the current expenditure on shipping with company's logistics department.

GoComet records freight information together for years and years of all your deliveries. It enables you to view and analyse the information according to different parameters like path, chosen forwarder, region, etc. and download the reports whenever you want. An interactive dashboard is also provided that can be used to alter multiple parameters to see graphs of price trends, pie charts for allocation of shipments, etc. Companies that procure freight through GoComet provide their marketing teams with access to the platform to help them make guided sales choices. The platform also enables you rate your forwarders over different deliveries on the basis of their freight efficiency or service levels. [5]

Overall, using GoComet for freight procurement enables you record information in one location that can be accessed by automatic accounts from anywhere and any moment. This enables you analyse various metrics such as the efficiency of the forwarder or the efficiency of your company's freight or changing trend in freight prices.

As the freight cost is one of the highest expense in logistics department the observations were made to analyse the logistic consignment shipping behaviour and the loop holes were found out as follows-

1. Huge freight cost for international import and exports.
2. Limited freight forwarders for consignment shipping to the respective destinations.
3. Cartel formation within the freight forwarding service providers.
4. Non-negotiable freight charges.

5. No real time arrangement for tracking of import and export consignment
6. A lot of operational time is being invested in tendering and negotiation for shipping consignments.

With integrating IT in logistics this loop holes can be dissolved and the desired objectives can be achieved.[6] GoComet helps in negotiating with freight forwarders around the globe and the logistics cost is saved. The portal uses regret matrix to calculate the total savings the company has done within specific duration of time.

GoComet follow the following standard procedure in floating the requirement in public domain and get the quotations for that specific requirement with acceptable terms and conditions.

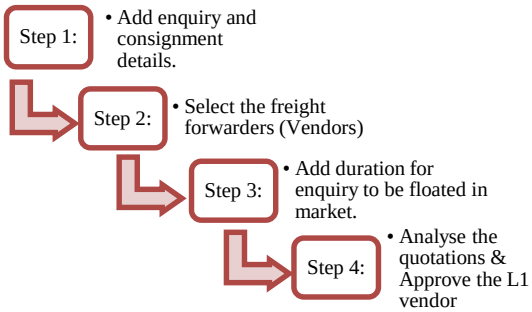

Fig:1 Process for GoComet portal.

Most of the online Marketplace for freight negotiation work in the similar way only difference it makes through is its interface or dashboard. For using GoComet we have to go through following steps.

The step one is to login in the portal with company authorised credentials. We can add vendors/freight forwarders through a vendor's master. Vendors that are specialised in FCL, LCL, Air, Ocean, Custom clearance with respective contact details.

For instance, if we want to book a freight the next step would be to go to the quotes section and we need to fill the required details like-

- Reference Number:
- Mode: FCL, LCL, Air cargo, General cargo
- Weight and Volume of shipment.
- Service and Address: It includes Incoterms and address details.
- Product Description and HSN Code
- List of documents
- Duration for the enquiry to be floated in the market.

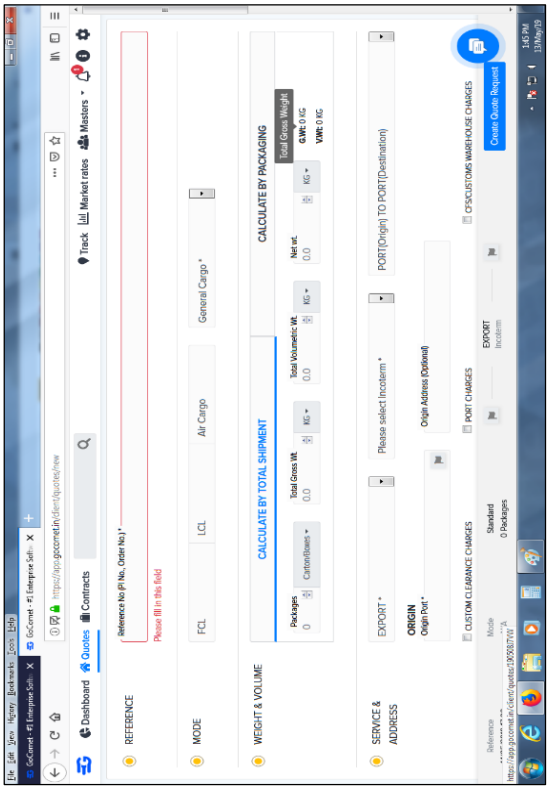

Fig:2 New enquiry dashboard

GoComet then prioritizes the freight cargo as L_1, L_2, L_3… Ln according to optimum cost and time. The freight forwarders with lowest coat quotation and fastest transit time are prioritised by L_1, L_2, L_3… Ln. Since the portal keeps transparency between the freight forwarders and they know the quoted price by L_1.

Fig:3 Quotes confirmation from freight service providers.

This creates a competition among the forwarders resulting in lowest possible cost quotation to the organisation for that shipment.

RESULTS AND DISCUSSION:

The portal discover best freight rates. Innovative auction mechanism based on net landed rates through RFQ (request for quotes) management module. Freight Index: Aggregate data from the market to benchmark your freight rates. Auto-generated daily status reports and various other monthly analysis reports for smooth management.

The portal was pilot tested from 24.05.2019 to 24.06.2019 in a mechanical industry basically operating into ETO strategy with high frequency of imports as well as exports and the results were noted for further analysis part.

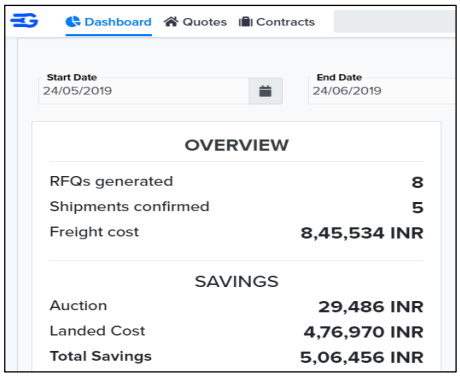

Fig:4 Reflecting the saved cost from export shipments

The above saving is done on international export logistics consignment whereas the below denotes savings in import logistics consignment over a specific mentioned period.

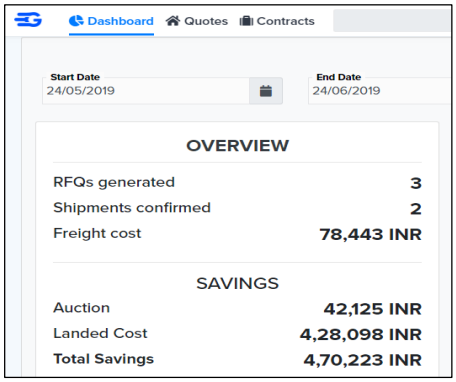

Fig:5 Reflecting the saved cost from import shipments

The portal uses the regret matrix in its algorithm to calculate the total savings obtained. For example-

Agents	A	B	C
Cost X	110	120	105
Cost Y	100	115	110
Total Rs.	**210**	**235**	**215**
	L_1	**L_3**	**L_2**

Table1: Regret matrix

It can be simply explained as company has gone with agent A due to minimum cost compared to other 2 agents, hence the saving of the company is (L_3-L_1) i.e. 25 Rs.

It can also be deduced as the company has gone for A instead of B or C hence, the regret matrix is used.

GoComet allows user to get quotations from various freight forwarders then the algorithm sorts out the forwarded with L_1, L_2, L_3….. Ln. depending upon the freight cost.

CONCLUSIONS

The cost analysis of freight rates illustrates major cost elements of freight rates and can help identify policy measures to reduce individual cost drivers. This research has implemented to highlight the benefits of IT integration in logistics for helping the organisation in saving funds in logistics operations. It also gives you a brief idea about freight negotiation using GoComet platform which using the concept of regret matrix helps the organisation save a lot of cost in logistics. GoComet also reflects your freight cost analysis overview along with the amount of containers shipped on the dashboard at a glance. The dashboard has two advanced features, Top Logistics Service Providers (LSP) and Top Export / Import nations depending on the complete expense of freight. This enables you get the full method to analyse quickly. The above data reflects the significant savings in exports as well as imports recorded from four weeks of pilot testing of the portal at KOSO India Pvt Ltd, Nashik which operates under Nihon KOSO group. The company uses e-auctioning for saving freight costs in international as well as domestic logistics operations.

ACKNOWLEDGEMENT

The content of this paper is completely unique and has authenticate figures and data collected from the sources and analyzed. The content is also plagiarism free which reflects the original piece of work.

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BIOGRAPHIES

Gaurav Suryawanshi, A Mechanical Engineer with experience into Project executions, MBA Operations Batch 18-20. Currently associated with TATA Croma, Supply chain Dept.

Chaitali More, procurement professional currently working as a Sourcing Analyst in e-procurement firm, responsible for handling the Source to Contract processes for our clients. Have previously worked with Amazon as a Customer Service Associate.