Goods and Services Tax Transparent Chain

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***Abstract*—Supply chain is a complex network mainly composed with raw material supplier, manufacturers, distributors, retailers and customers, being a linkage of upstream and downstream members. The information as an important part of the supply chain is based on an effective supply chain coordination. Each and every member in supply chain has the right to obtain information from any other member in supply chain .This paper, through literature review introduces the importance of information sharing in the decentralized supply chain, in particular between downstream and upstream. This paper aims to report and review the relevant research works with various points of view on supply chain coordination to understand the mechanisms of information sharing. It will also state the research deficiency and potential research tendency.**

Index Terms—-GST, Information Sharing, Supply Chain

I. Introduction

The introduction of Goods and Services Tax (GST) is a very significant step in the field of indirect tax reforms in India. GST will replace several Central taxes such as Central Excise, Service Tax, SAD, CVD, and State taxes such as VAT, CST, etc. In this application every member who buys or sells goods would be able to make transactions based on products MRP and the product type mentioned as per GST's Slabs. This transaction will be under supply chain management and with every transaction the information will be stored in the database.

In [1], a supply chain is a network of individual firms that convert raw materials and components into final products and then deliver to customers. In this application, different supply chain members such as Retailer, Manufacturer, & Raw material will upload their product detail in the database and accordingly consumer will be able to view the product details in each stage of the supply chain and finally the product's MRP will be shown to the user along with the final GST amount. Therefore, this paper will address the research question how to deal with the issue of asymmetric information under an uncertain environment in the supply chain. In order to answer this question, the structure of this work is arranged as follows: the second section will make literature review in order to illustrate the coordination mechanisms essence in the supply chain, targeting the major issues of information sharing in supply chain coordination. And then, the third section will make the concluding remarks proposing potential researching opportunities in the future.

II. Literature Review

In [2], the authors indicate that supply chain agents exist not only in physical flow but also informational flow. The physical flow means the flow and storage of goods, and the informational flow is to deal with the flow and storage of information associated with these goods. Supply chain coordination proposes a method that we can analyze the supply chain as a set of agents. Moreover, [3] points out that, for companies, there is no doubt that the companies need better information flow, and they should also be easier and quicker to access the required information.

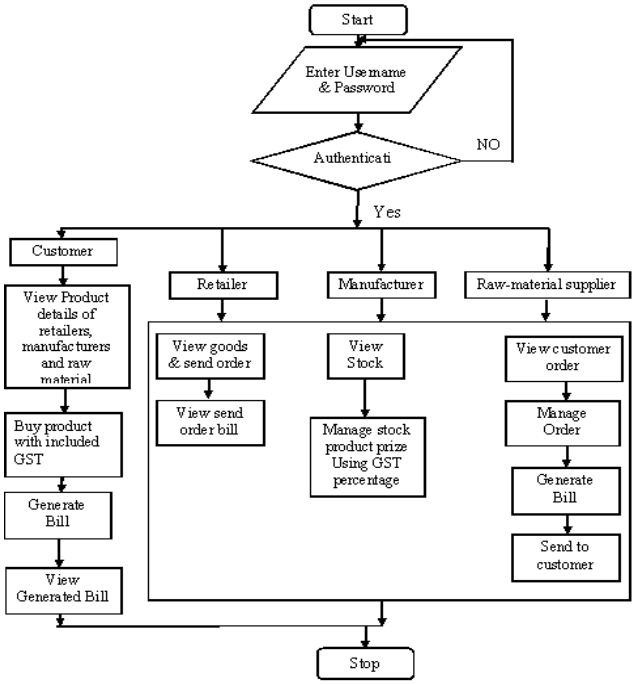

Fig. 1. Flow Chart

It is important to maintain the transparency between these supply chain members as the user will be able to see the entire product lifecycle along with the original MRP. In order to improve the performance of supply chain, it is necessary that all the members of the supply chain could cooperate with together. Thus, supply chain coordination as a vehicle to redesign decision rights, workflow, and resources between chain members to leverage better performance such as higher profit margins, improved customer service performance, and faster response time [4]. They indicate that the members of the supply chain should be unified under a whole system. It means that the participants are not the single unit anymore; their behaviours will directly have an influence on the following members. With coordination, the barriers among the members will be decreased. Material flow, information flow and so on,

can be strengthened. Meanwhile, the members can cooperate with each other to share the risk, costs and benefits.

III. Risks in Supply Chain

Supply chain risk is described as "the risks to material product and information flow from original supplier to the delivery of the final product ". And the risks to the supply chain could be internal and external factors [5]. The internal supply chain risks mainly indicate the uncertainties within the supply chain, which contain demand, supply and cost uncertainties. And the external supply chain risk are involved with man-made disasters and uncontrollable natural calamity, such as major economic crisis, earthquakes, flood etc. Both the internal and external risks could be occurred to any part of the whole supply chain and they are usually defined as operation and disruption risks [6]. Therefore, supply chain risks management (SCRM) focuses on identifying and reducing risks not only at an organization level but the entire supply chain compared to traditional enterprise risk management. Still, SCRM follows a fairly traditional risk management process, i.e. risk identification, risk assessment, risk mitigation and risk control [7].

IV. Existing System

Many existing systems have restrictive pricing and negotiation policies. Auctions are held at fixed intervals, and only one type of auction is allowed (e.g. First Price, Second Price), More generic market architectures also bilateral negotiation and combinatorial auctions. In existing system, automated bidding is provided to participate in an auction or to bargain with a resource provider that may lead to increased delays for consumers who urgently need the resources.

The existing system is not so relevant the Customer doesn't get proper cost with GST. The data is maintained in paper format so it is not as proper as the human power cannot be accurate. In Existing System are not GST included.

Disadvantages of existing system:

- Time consuming.
- Lots of paper work.
- No proper information of transport of goods.
- No proper price of goods.
- Too many intermediaries resulting in high cost of goods and services.
- Price setting mechanism not transparent.
- Inadequate infrastructure for storage, sorting, grading.
- Market information not easily accessible.
- GST are not included.

V. Implemented System

In this proposed system we propose a framework called "GST cal" that allows customer and providers (i.e. Retailer, manufacturer and Raw material supplier) to trade computing resources according to their requirements. In this android application successfully calculated products prize add GST percentage. This application allows the customers to View Product details and buys the product with including GST of retailers, manufacturers and raw material suppliers. After product buy confirmation then retailers, manufacturers and raw material suppliers generate bill of the products and send to the customer. The Google Cloud Messaging system (GCM) is use in this proposed system for send notification for customer about the bill. After generating bill of product customer view the generated bill of the product. In this proposed system retailers, manufacturers and raw material suppliers easily View goods& send order and also view send order bill. Retailers, Manufacturers and raw material suppliers checks available stock and manage stock product prize using GST percentage. In this proposed system retailers, manufacturers and raw material suppliers View customer order, manage that order and generate the bill send to customer.

Advantages of proposed system:

- Online and User Friendly system – It is online system where-in the Market activities are recorded as and when it takes place. The user with minimum knowledge of computer can use this system and do his/her operations.
- Incorporated with Business Rules – This system has been designed and developed with number of business rules defined in the Market Act and Rules. It will check the business logic when entering the data.
- Workflow Based System – Wherever the process is critical, workflow system has been incorporated so that the required accountability is built in this system.
- Transparent – This system is transparent so that the results of the tendering, billing, DCB can be viewed by anybody on click of button. This will help them to verify the process and claims, etc.
- Role based Access – As different level of users will be operating this system, the system provides the different options as per their roles.
- Reduce paper work.
- Provide a local supply for domestic food processors.
- Ensure 'reasonable' prices for consumers with adding GST.
- Conserve the natural environment and maintain vigorous and aesthetically pleasing rural communities.
- Ease the farm sector's speed and the costs of adjustment to external factors.

VI. Conclusion

It takes many reliable preliminary evidence that the information sharing and coordination mechanism not only improve the performance of supply chain, but also maximize the benefits of supply chain's members.

This process would also help each and every member in the supply chain get their share from the profit.

More attention to the downstream information sharing than upstream information sharing and there is little work on upstream information sharing literature because this area is even newer than downstream information research., a more efficient database server and a solid replication infrastructure has to be put in place.

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