Executive Summary

Indian economy majorly depends on agriculture and India ranks second worldwide in farms output. In India, the agriculture sector occupied almost 43 percent of India's geographical area and two third of total employment depends on agriculture and it acquired about 17 percent of India's GDP. Agriculture is a contributing for socio economic growth of Indian farmers and growers. The Green Revolution came with the aim to progress the agriculture in India.

Because of poor advertising hones, the advancement of the vegetable business is restrained; there is an expansive rupture amongst ranchers and retail costs. The part of vegetables is extremely huge underway and showcasing for Indian ranchers and producers and it fills in as an impacting power in the economy. The retailing of vegetables is a low edge business, the business sector imminent is huge in India and this has immersed numerous corporate into this segment. Advertising of horticultural items is distinctive and more perplexing than numerous mechanical items due to different reasons like perishability, regularity and massiveness. The extraordinarily way of little size of area property by the ranchers, capricious climatic circumstances, creation increment over wide land region, centralization of horticulture in remote towns, an extensive variety of utilization examples of the Indian shoppers and a poor logistics and Supply Chain Management (LSCM) makes showcasing for leafy foods considerably more troublesome. Amongst this, new vegetables are dependably in the consistent interest by the shoppers. Subsequently SCM assumes a basic part in promoting foods grown from the ground. Inventory network administration not just aides in developing the creation and per capita utilization, additionally helps in financial advancement of the nation. In spite of the fact that it is extremely testing, SCM additionally achieves heaps of chances in showcasing vegetables. A powerful Supply chain, not just builds the gainfulness and productivity of retailers, additionally enhances diverse partners like cultivators (agriculturists), consolidators and purchasers.

This study attempts to distinguish various issues involved in running the supply chain for different vegetables and examine different strategies that can be applied for its optimization. According to NHB report published in 2013, India produces 162187 thousand metric tons of vegetables and the total part under vegetable agriculture is about 9205 thousand ha. In terms of
quantity tomato, potato, onion, cabbage and brinjal contribute for around 60 percent of the whole vegetable making. Similarly India’s annual fruit production is 21285 metric tons according to NHB report, 2013 and the entire area under fruit farming is around 6982 thousand ha. The major Indian fruits are banana, apple, mango, citrus fruits, pineapple, guava, papaya and grapes. Marketing of Fresh vegetables and fruits acts as a very influencing power in the Indian economy.

The objectives of the study are: to examine the growth rate and trends in the area, production and productivity of different vegetable crops; To examine the existing marketing system and to work out the price spread; To evaluate the production and marketed surplus of vegetable crop at farm level and relationship between market surplus and market arrivals; and To study the role of intermediaries in vegetable marketing in study area.

The study has been made in Jhansi division, which comprises three districts: Jhansi, Lalitpur and Jalaun for secondary data and Lalitpur district is selected for primary data. A multistage stratified sampling method has been adopted to make comprehensive study. Firstly from Lalitpur district three blocks have been selected by random sampling method. From Mehroni block, 50 vegetables growers, from Birdha block 33 vegetables growers, and from Jakhora block 31 Vegetables growers have been selected by stratified sampling method. Thus from Lalitpur district 114 Vegetables growers has been selected. 20 retailers and 22 intermediaries were undertaken for comprehensive study. The reference period was 2012-13 agricultural year.

The data were used in the present study is secondary and primary in nature. The present study also contains secondary information. To find out the compound growth rates, trend in arrivals and market prices, seasonal variation of vegetables and vegetables market price in Jhansi division and its districts secondary data have been used. The data has been compiled from various published government documents of Uttar Pradesh viz. - Agriculture Statistics, Directorate of Agriculture and Marketing, District Agriculture Offices of Jhansi, Lalitpur and Jalaun districts.

To examine the existing marketing system and to work out the price spread the data have been collected from Mehroni block 50 vegetables growers, from Birdha block 33 vegetables growers,
and from Jakhora block 31 vegetables growers. Thus, a total of 114 vegetables growers have been undertaken for the study purpose from Lalitpur district. For the study of marketing aspect of vegetables price spread 22 intermediaries and 18 retailers were selected from Lalitpur districts.

The study reveals that the production of tomato in Jalaon district during 2005-05 and 2011-12, which was highly productive for tomato 55056 metric tons grown in the area of 1155 hectare. In the same year tomato production was very less in Lalitpur district which was 356 metric tons out of 12 hectare. Production in Jhansi zone was 55693 metric tons out of 1174 hectare during 2006-07. If we focus on brinjal production in Jhansi zone, the highly productive year was 2011-12, during this year production was 4303 metric tons out of 90 hectare. While Lalitpur was highest productive for brinjal among three districts during the same year, area was 48 hectare and production was 1527 metric tons. Year 2011-12 was comparatively very rich year for the production of potato, which was 38774 Metric tons. Jalaon was at top for tomato during same year. Maximum production of onion quantity 7893 Metric tons out of 525 Hectare, grown in Jalaon District during 2009-10. Okra’s production in 2009-10 was 4457 metric tons out of 309 hectare area in Jalaon District. 2009-10 comparatively less than 2011-12 in respect okra. Bottle guard production in 2007-08 was 855 metric tons out of 31 hectare in Jalaon district. Torai’s production in 2011-12 was 447 metric tons out of 24 hectare in Jalaon District, which was very high in compare of other district. For the cauliflower Jhansi district was at top in the year of 2011-12, production was 1280 metric tons out of 62 hectare.

The study also focused on vegetable price spread per quintal. It is observed that on producer share, producer price, marketing cost, consumer price and marketing efficiency with the help of different vegetables marketing channels i.e., producer to consumer (P-C) and Producer to middlemen to Retailer to Consumer (P-M-R-C). This statics has been gathered from 3 block of district Lalitputr. As well as we found marketing efficiency was zero. On other hand, if producer will use channel P-M-R-C then producer price will be less as compare to P-C channel. Marketing cost of P-M-R-C is 8-10 time higher than P-M. Chapter 2 is about relation between production and marketed surplus. It is figure out that statics on the basis of primary and secondary data. Primary data says, farmer sells about 95% (of their total production) vegetables into market and
5% takes in home use. As per study 70% of farmer using channel P-M-R-C for sell vegetable and 30% using P-C channel.

According to yearly index table, in 2001 tomato was the vegetable which achieved highest yearly index Rs. 1052.60 per quintal while market price goes high in 2001. In 2012, Brinjal yearly index was 173.13 and highest price reached. Rs. 806.51 per quintal in 2011. In 2011, Potato yearly index was 139.56 and highest market price Rs. 825 per quintal in 2012. Onion yearly index was 159.02 in 2011 and its highest market price goes up to 892.06 per quintal in same year. Okra yearly index was 243.28 in year 2012 while its highest market price was 1139.42 per quintal in 2005. Bottle gourd year index was 152.09 in 2012 and market price was 837.44 per quintal in year 2010. Torai yearly index was 360.67 in 2012 and highest market price was 1243.54 in same year. Yearly index of Cauliflower was 186.29 in 2012 and highest market price 1110.26 in same year.

Fourth objectives describe about middle man role, in order to that illustrated quantity of vegetables that had been sold by marginal, small and larger former/producer through middle man in market. It is also observed that about 95% larger farm size farmer sold their vegetable through middle man and 70-80% small size group farmer sold vegetables through middle man.

The following problems are observed in the study:

1. Reduction in item misfortunes in transportation and capacity – when we sold and transport the vegetable in the business sector and goes out vegetable by the vehicle, so there is less posibilities to harm the vegetable material amid transportation. Some kind of perishable vegetables requersd to early offering in the business sector, yet this is additionally an administration that how to sold the vegetable before wastage. So the store network system help to protaction of vegetable amid of transportation and safe transportation produce the salary of vegetable cultivators.

2. Increasing of offers – really production network administration backing to giving the vegetable on time, giving the crisp vegetables, and rich vegetables as per necessity of purchaser and others. Purchasers lean toward new and clean vegetables in the business sector. Store network strategy gave the new and clean vegetable in business sector. So the store network expands the business estimation of vegetable in the business sectors.
3. The store network helps in circulation of innovation starting with one then onto the next spot because of its necessities. Exchange of innovation is additionally backing to expand the living standard of vegetables cultivators, really is likewise a dynamic procedures for amplification of offers of vegetables that how to enhance benefit, how to develop the vegetable on suitable spot as per its necessity and how to opportune supply may be conceivable. Innovation of vegetable generation additionally ensures the capital of vegetable cultivators and gives the number of the data among chain joins.

4. Supply chain administration gave the better data about the vegetable business sector for vegetables cultivators and stream of items with the suitable costs of vegetables, markets and advances is a vital part of any business. So the inventory network administration helps in the all procedure of vegetables business.

5. Supply affix took after and plotting to the source. It helps ideal yield in alarm assets. Because of vegetables generation, ranchers face numerous difficultied and issues yet after that they didn't earned adequate benefit. Orderly store network gave the assets data as commercial center, market proficiency, market cost and market interest and all of exercises are identified with agriculturists' creation and development.

6. Better control on item, its security and quality as of late after some mindfulness more consideration is being devoted to build the vegetables and organic product creation and profitability. This is being actualized through accident software engineers, crisis and connected developers, for this great seeds, better watering system offices, learning of enhanced methods of development, appropriate plant security measures quick transport and great storerooms are being made accessible through these projects.

7. Big ventures and dangers potential outcomes are shared among accomplices/relationship in the chain in light of the fact that there are numerous danger and uncertainty in vegetable creation because of perishability. In the event that we utilized the chain, so probability of danger might be less and its danger esteem partitioned into each individual whom interfacing in the inventory network.
8. Supply chain expanded efficiencies and expanded the volume of vegetable business sector. It is the best availability from the purpose of creation to shopper fulfillment.

9. Customer fulfillment


"Low Working Capacity" is one reason of low horticultural generation in India which is seen in the lion's share of populace. Present eating regimen of a normal Indian is extremely not all around adjusted or oversaw. For the most part comprises of for the most part oats. On a normal the greater part of the Indians devours 375 grams of oats, and just 30 grams of vegetables every day, as contrasted and 328 grams of oats, 316 grams of vegetables and 362 grams of natural products in cutting edge nations. For parity eat less carbs the dietitians instruct the utilization with respect to no less than 200 grams of verdant vegetables and 150 grams of root vegetable every day. In this way to adjusted and enhance our eating routine, we ought to fundamentally expand the vegetable generation and along these lines the utilization.

At present, over a zone of 320 million sections of land, more than 70 % of our populace is occupied with Agriculture. Out of this lone around one to two rate of the aggregate horticulture region is under vegetable yields. In view of these figures the need of vegetable development on bigger region is required.

1. The yield-of vegetable product is around 5 to 10 times more than of oats on a normal; they are snappy developing and shorter length. In this manner the time has come to take up the more thorough and numerous vegetable trimming in India.

2. Recently after some mindfulness more consideration is being committed to build the vegetables and organic product generation and efficiency. This is being actualized through accident software engineers; crisis and connected developers, for this great seeds, better watering system offices, learning of enhanced strategies of development, legitimate plant assurance measures quick transport and great storerooms are being made accessible through these projects.
3. As learning is spreading in our nation individuals comprehend the nutritious significance of vegetable in every day diet which results in expanding interest for vegetable in our nation.

4. New watering system ventures development helps us in lifting watering system plan and group well, watering system offices which rise territory and generation of vegetable.

5. Due to increment in compost commercial enterprises and their ability of assembling, there is parcel of degree for vegetable creation.

6. Indian Agricultural Research Institute, New Delhi, National Seed Corporation of India and Agricultural Universities of nation are disseminating clean seeds of upgraded qualities and assortments of various vegetable in all a player in nation.

7. Due to accessibility of chilly storeroom (in some parts of nation) it will feasible for ranchers to keep their items alright for quite a while in the wake of collecting.

8. The auto-ruck is likewise making it workable for a vegetable maker to exploit offering his to item to far off business sectors.

9. When there is colossal creation of any vegetables, the value rates in business sector descend for that vegetable. Actually agriculturist does not get more pay because of this, but rather through conservation, cultivators can get more costs.

Along these lines there is limitless extension for vegetable development, development, acquirement and showcasing which will streamline the inventory network administration.