

A STUDY ON SUPPLY CHAIN MANAGEMENT OF AGRICULTURAL PRODUCTS IN RURAL MARKET OF LUCKNOW REGION,UTTAR PRADESH,INDIA

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Abstract

Lucknow is a capital of Uttar Pradesh. All the government head offices of Uttar Pradesh are located in Lucknow. The total rural population of Lucknow is 1,550,842 in which males are 813,752 and females are 737,090. Major population depends on agriculture. 33.79% of rural population and 66.21% of urban population exist in Lucknow. In this Paper, the study about the business intermediaries i.e. distributors and retailers and their pros and cons are highlighted. We have used sample size of 100 respondents. The questionnaire has been circulated among the intermediaries of three major rural markets of Lucknow district of Uttar Pradesh. We have employed the percentage calculation method to find out the actual problem and challenges to various business intermediaries related with the agriculture and allied agriculture businesses. The findings of the study indicate that a more intermediaries involved in agriculture business apart from allied agriculture business. Most of the people use trucks and least people use private vehicles for their transportation facilities. Public mode of transportation is available to them. There are approx. 72 percent of intermediaries does not have own warehouse facility which affects their business profitability.

Keywords: Transportation, Supply chain management, Business intermediaries, rural market, agriculture business etc.

Introduction

Any business organisation make profit on the availability of the right product to the right consumer at right time at right place. This is only possible with the better supply chain management strategy. The supply chain management includes inventory, transportation, warehouses facilities to the business intermediaries etc. A business intermediary may be a wholesaler, retailer, agent or any of both. Before reaching to the consumers product passes through various distribution channels. The movement of the product mainly depends on various facilities available to the intermediaries like transportation mode, warehouse facility, government help etc.

The improvement in the process of supply chain management depends on the better availability of product. The government role, awareness of the business intermediaries with appropriate policy and strategies can improve the supply chain management in the particular industry or region. The role of the government is to maximize the size of the particular industry. A better transportation facility, warehouse availability, training and skills, bank involvement may attract the big marketers which ultimately increase domestic and international competitiveness in particular industry at a great extent.

Uttar Pradesh largely contributes in the area of agriculture and allied agricultural activities because of its large population involved in agriculture sectors. Uttar Pradesh secured first rank in the production of wheat in India. The total population of Uttar Pradesh is 19,98,12,341 (As per 2011 census) which contributes 16.51 percent of the India's population. There are 20 agro-climatic zones in Uttar Pradesh. Soil groups have 8 in numbers. Total rural population in Uttar Pradesh is 15,53,17,278 which contributes 77.73 percent of total India's population (As per 2011 census). Uttar Pradesh secured first rank in the overall rural population in India. The growth rate of rural and urban population in Uttar Pradesh was 17.96 and 28.82 percent during 2001-11

respectively. Lucknow is a major district secured first rank in population in Uttar Pradesh. The total population of Lucknow is 4,540,470(2011 Census). The area of Lucknow is approx.240,928 square kilometer .There are mainly 18 divisions or tehsils,72 districts, 821 blocks ,52021 panchayats and Tahsil wise there are mainly 819 villages in Lucknow. Therefore, such large agriculture based areas and huge population has attracted business intermediaries to involve in the business of agriculture and allied agriculture commodities.

The major market in Lucknow is Hazratganj market includes maximum number of wholesaler and retailer of different products like luxury items, telecom products, textile etc. The major “Mandi” (Local Wholesale Market) is located in Lucknow Mandi,Dubagga Mandi and Naveen Mandi Sthal.Lucknow district is located in the bank of Gomti river.Many wholesalers and local farmers traded various agriculture and allied agricultural commodities i.e. vegetables and fruits,agricultural seeds etc. with retailors in these markets.

In the previous literature on supply chain management focuses on various models, functions and matrix of the supply chain management, transportation, logistics and inventory management. As Literature Review is concerned, none of the studies focused on the business intermediaries i.e. wholesalers and retailers who are the important element in supply chain management of rural markets especially in India. In this paper,we have considered three major markets i.e. Mohanlal ganj,Bakshi ka Talab and Dubagga market. In the following studies,it is considered intermediaries of agriculture and allied agriculture or both . In this study it is focused on various challenges faced by the wholesalers, retailers and agents of these markets.Different issues have also been discussed in the following study.

The main purpose of the study is to focus on the problem, issues and challenges in Lucknow district of Uttar Pradesh. This research study is also an attempt to validate the results of few previous studies based on the same analysis. This research study has following research objectives: 1-The analysis of various challenges faced by various business intermediaries in rural market in Lucknow.

2-The analysis of the availability of various facilities i.e. warehouse, transportation available to business intermediaries in rural market in Lucknow.

In order to find out the answers of the following objectives, we have used percentage calculation methods. The organization of this research study are as follows. In this paper,Section II contains review of literature, Section III contains analysis and result discussion, Section IV includes conclusion of the research study.

Review of Literature

In this paper, researcher focusses on the different issues and challenges which are related to various business intermediaries i.e. wholesalers and retailers.These business intermediaries performed a significant role in the process of Supply Chain Management (SCM) in rural market . The literature review helps to identify the research gap. **Mentzer, et al, 2001** has given the distinction between the supply chains as a phenomenon used in business and their management. He focuses on the Supply Chain Management (SCM) as a phenomena which exist in business. **Heskett; et.al** highlights on the concept of physical flow , distribution and coordination with the flow of materials in the whole supply chain. **Smykay et .al** focusses that inbound and outbound movements are involves in the business logistics. He has formulated the concept of integration and synchronization as it is the concept of SCM.

Forrester emphases on the integrated nature of organizational relationship and gives a theory of distribution management. He analysed between the company functions and between the

company and its markets, industry etc. **Mentzer et, al.** gave a model of supply chain management. This model shows flow from inter-functional coordination which covers trust, commitment, dependence, behavior to Inter-corporate coordination .This model includes marketing, sales, research development, forecasting, production, purchasing, logistics etc .This flows toward the customer satisfaction and profitability of the firm.

Fox, et.al 1993 defined supply chain as a set of activities which highlights the functions of enterprise. These functions must be integrated to each other in order to operate efficiently. Lambert,et .al and **Simchi,et.al 2003** emphasises on holistic view which is importance of overall optimization in a supply chain rather than functional optimization. **Flychmein and Meyr (2003)** give the matrix which focusses on the operational, tactical and strategic analysis for decision making at short- term, mid-term and long term levels respectively.This matrix generally flows from Procurement to Production, Production to Distribution and Distribution to Sales.

Data and Methodology:

This research study is mainly based on primary source of data.To collect the data simple random sampling have been used.The data has been collected from all three markets i.e.Mohanlal Ganj, Bakshi ka Talab and Dubagga of Lucknow, Uttar Pradesh on 20th – 21st January, 2020. A total of 100 respondents have been interviewed in detail using personal interview method. Sample consists of business intermediaries i.e. wholesalers, retailers and agents,based on agriculture and allied agriculture (See Table 1). About 25 percent of the sample respondents are distributors,51 percent are retailers, 11 percent are agents and 13 percent are both wholesalers/retailers (See Table 1).

Table 1: Sampling Details

Categories		Actual Sample size	Percentage
Government Registration	Registered	100	99
	Not Registered	01	01
	Total	100	100
Business Intermediaries	Wholesalers/Distributors	25	25
	Retailers	51	51
	Agents	11	13
	Wholesalers/Retailers	13	11
	Total	100	100
Markets	Mohan Lal Ganj	35	40
	Bakshi ka Talab	35	30
	Dubagga market	30	30
	Total	100	100
Qualification of Owners/Entrepreneurs	Senior Secondary	43	40
	Higher Secondary	40	43
	Graduation	11	11
	Post-Graduation	06	06
	Total	100	100
GST Number	With GST Number	78	78
	No GST Number	22	22

	Total	100	100
Own Warehouse Facility	With warehouse availability	28	28
	No warehouse availability	72	72
	Total	100	100
Mode of Transportation	Private vehicle	31	63
	Buses	0	0
	Trucks	69	37
	Railways	0	0
	Airlines	0	0
	Total	100	100

Source: Primary survey conducted on 20–21 Jan, 2020 in Lucknow

Results and Discussion

For the analysis of data, researcher fill the questionnaire by the 100 respondents who are the distributors or retailers of agricultural products (like-rice, wheat, maize or allied agricultural products like products curd, milk etc.) in three markets i.e.Mohanlalganj,Bakshi ka Talab and Dubagga market. The analysis of data in these areas are as follows-

1-Registered Retailers or wholesalers: There is a 99% registered retailer or wholesalers are present in Mohanlalganj, Bakshi ka Talab and Dubagga markets.

S.No.	Number of wholesalers or retailers of rural market	Percentage of registered wholesalers or retailers
1	100	99

The retailers or wholesalers are aware about the registration. All the retailers are registered it shows that they follow the rule and regulations and they are accountable to their business. They believe in code of conduct towards trading business.

2-Region where survey is done:

S.No.	Number of wholesalers or retailers of rural market	Region where survey is done
1	100	Mohanlalganj,Bakshi ka Talab and Dubagga market in Lucknow region

The survey is done in Lucknow region of Uttar Pradesh in Mohanlalganj,Bakshi ka Talab and Dubagga market .These areas are under 25 kilometer range from Lucknow city. These are the rural areas where people have limited resources to use in daily basis and maximum people have small business or depend on agriculture or trading of allied commodities.

3-Turnover of wholesalers or retailers of agricultural products in rural market:

S.No.	Percentage of retailers or wholesalers have turnover	Percentage of retailers or wholesalers have no any turnover	Amount of turnover
1	46	54	Above 50 Lakhs/annum

About 54% of retailers has no any turnover .They are not come under the criteria of income tax.46% of retailers or wholesalers come under the criteria of income tax, their average turnover

are appr. Above 50 lakhs/annum. It shows that retailers or wholesalers have limited number of turnover. 54% of retailers or wholesalers have no any turnover they have limited business.

4-Business Type:

S.No.	Percentage of Distributors	Percentage of retailers	Percentage of Agent	Percentage of wholesaler/retailer both
1	25	51	11	13

Thus, retailers have maximum number of percentage and agents have less percentage in rural market of Lucknow region. Percentage of both Wholesaler as well as retailer in these markets are 13.

5-Qualifications:

S.No.	% of Xth pass	% of XIIth pass	% of UG Pass	% of PG Pass
1	43	40	11	6

Thus, 43% retailers or wholesalers are Xth passed, 40% are XIIth passed and 11% are UG passed and 6% are PG passed. Thus, the maximum percentages are of Xth passed. PG passed have least percentage. This shows that people are less interested towards study at higher education and more concerned about trading business.

6-Dealings:

Sl. No.	Percentage of agricultural items	Percentage of Allied agriculture items	Percentage of both
1	62	15	23

Thus, the dealings of maximum items are of agricultural items in rural market of Lucknow region. The productions of agricultural items are maximum in these areas. People have easily done the business of agricultural items. Allied agricultural items like milk, curd etc. have less percentage in these areas.

7-Getting on time material from manufacturing/supplier:

SNo.	Per. of Less time	Per. of Below Average time	Per. of Average time	Per. of Above average time	Per. of More time
1	26	25	35	10	04

About 26% retailers or wholesalers are agreeing to get on less time material from manufacturer /Supplier, 25% to get the material on below average time, 35% receive the product on average time, 10% are of above average time and 04% are of more time. It takes average time to get material on time from the manufacturer or supplier. The main reason is that the transport facility are good and good relationship of the retailers from their suppliers.

8: Product range:

S.No.	Per. of Less Product range	Per. of Below average range	Per. of Average range	Per. of Above average range	Per. of more range
1	18	28	35	10	09

Thus,35%of retailers and wholesalers of rural market have average product range which is maximum in percentage.9% have more product range,28% have below average range,18% have less product range and 10% have above product range.

9-Transportation facilities:

S.No.	Per. of Private vehicles used	Per. of Buses used	Per. of Trucks used	Per. of Railways used	Per. of Airways used
1	31	0	69	0	0

Maximum number of retailers or wholesalers 69% of retailers and wholesalers used trucks., 31% used private vehicles and 0% used buses, railways and airways. It shows that the maximum number of retailers or wholesalers supply the products in bulk.Small retailers used private vehicles.

10-Own Warehouse availability:

S.No.	Percentage of retailers those have own warehouse	Percentage of retailers those have not their own warehouse
1	28	72

Thus, only 28% of retailers have their own warehouse and 72% of retailers have not their own warehouse. In these areas maximum retailers have limited resources thus they do not use warehouses.They purchase limited resources from the supplier.

11-Government financial aid to expand the business:

S.No.	Per. of Less Gov. financial aid	Per. of below financial aid	Per. of average financial aid	Percentage of above average financial aid	Per. of more financial aid
1	32	60	08	0	0

Thus, 32% of retailers or wholesalers agreed to provide less financial aid by the government,60% says below financial aid provide by the government ,08% says are of average financial aid and 0% are above average financial aid and 0% says to provide more financial aid by the government.M aximum retailors says that government does not provide any financial aid in these areas if they try to get financial benefit the process is so complex thus they do not apply for financial aid.

12-Government help in case of any loss:

S.No.	Per. of less govt. help	Per. of below govt help	Per. of average govt. help	Per. of above govt help	Per. of more govt. help
1	30	61	09	0	0

Hence,61% retailers or wholesalers are supported below government help, 30% supported less government help, 09 % agreed average government help 0% says above government help and 0% supported more government help. Most of the retailers says that in case of any loss no help is provided by the government immediately.It takes long time for recovery of loss.

13-Training and skills provide by the government:

S.No.	Percentage of retailers agreed that government provide no any training and dev. Skills programs in rural market
1	100

Thus, all the retailers or wholesalers of rural market of Lucknow region are agreed that government does not provide any training and skill development programs to them. All the retailers says that training program should be provided by the government which is related to their business.

14-GST Number:

S.No.	Percentage of retailers or wholesalers have GST number	Percentage of retailers or wholesalers have no GST number
1	76	24

About 76% of retailers or wholesalers in rural market have GST number whereas 24% have no any GST number they are the small retailers. .

15-Customer Satisfaction:

S.No.	Per. of less satisfaction	Per. of below satisfaction	Per. of average satisfaction	Per. of above average satisfaction	Per. of more satisfaction
1	0	0	46	36	18

Hence,0% retailers says that customers are less satisfied and below satisfied.46% retailers agreed that customers are average satisfied,36% retailers agreed that customers are above average satisfied and 18% retailers give their view that more customers are satisfied. Maximum customers are average satisfied from their retailers or wholesalers .They also focus to provide a better quality product from their supplier of wholesaler.

16-Responsiveness by big supplier/manufacturer:

S.No.	Per. of less response	Per.of below response	Per .of average response	Per. of above average response	Per. of more response
1	10	0	29	47	14

In this paper, 47% of retailers have above average response, 14% have more response, 29% have average response, 10% have less response and 0% has below response by their big supplier or manufacturer.Maximum retailers have good relationship from their manufacturer or supplier. The main reason is that Retailers are hard worker, give better business and and take more and more order from their Wholesalers. They are sincere to their work as a result good business is given by the retailers and gives more benefit to them.

Findings & Conclusions

The findings of the research paper shows that in Mohanlalganj, Bakshi ka Talab and Dubagga markets out of 100 respondents in Lucknow region 99 percent of business intermediaries

wholesalers and retailers are registered, 63 percent intermediaries' deals agricultural items whereas, 15 percent intermediaries deal with allied agricultural items and 23 percent deals in both. There are approx. 69 percent business intermediaries uses trucks and 31 percent use private vehicles for their transportation facilities. The situation of having any type of warehouses whether own or government is also very pathetic. There are 72 percent intermediaries do not have any type of warehouse facility to them. There is no government supports in terms of financial aid, training and skill development, warehouses etc. to the intermediaries. There are around 76 percent intermediaries have GST number and other 24 percent do not have GST number. Thus, bank does not provide any types of loans to these business intermediaries/entrepreneurs for their business activities.

Limitations of the Study: The limitations of this paper are as follows-

- 1-The above research study covers only three rural market of Lucknow region.
- 2-This research study does not emphasise the other rural markets of Uttar Pradesh.

Recommendation: The recommendations to the government are as follows-

- 1-The government should provide proper training and skill development programs to the retailers or wholesalers of rural market. It will spread the awareness among people of rural market.
- 2-There should be flexibility to provide loans to the retailers or distributors to expand their business in rural market.

References:

- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business logistics*, 22(2), 1-25.
- Heskett, J. L.; Robert M. Ivie, and Nicholas A. Glaskowsky, Jr. (1964), *Business Logistics: Management of Physical Supply and Distribution* (New York: The Ronald Press).
- Smykay, E. W. (1973). *Physical distribution management*.
- Forrester, J. (1958). Industrial dynamics: A major breakthrough for decision makers. *Harvard Business Review*, 36, 37-66.
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business logistics*, 22(2), 1-25.
- Fox, M. S., Chionglo, J. F., & Barbuceanu, M. (1993). The integrated supply chain management system. Technical report, Department of Industrial Engineering, University of Toronto.
- Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2004). *Managing The Supply Chain: Definitive Guide*. Tata McGraw-Hill Education.