

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

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Abstract

Ayodhya is famous for the birth place of Bhagwan Rama as the epic of Ramayana located in Uttar Pradesh. Ayodhya is the administrative headquarter of Faizabad division. Ayodhya is located in the bank of Saryu river. Ayodhya is also famous for different tourist places such as Ram ki Paidi Ghat, Kanak Bhawan temple, Vijay Raghav Mandir etc. The total population of Ayodhya is 450,899(Census 2011) .There are 11 blocks, 835 Gram panchayats,3 town areas,1272 villages in Ayodhya. Supply chain is the process by which the final products are finally reached to the consumer or end user. Distributor, retailer, wholesaler etc. comes under the supply chain management. In this Paper, here is the study about the business intermediaries i.e. distributors retailers and both distributors and retailers. This paper highlights their transport facilities, warehouse availability relation from big suppliers, customer satisfaction etc. Sample sizes of 50 respondents are used in this paper. Questionnaire has been filled by intermediaries among three major rural markets of Ayodhya i.e. Masaudha, Bikapur and Sohawal. Percentage calculation methods are used to find out the actual problem and challenges to various business intermediaries related to the agriculture and allied agriculture businesses. The study observes that more intermediaries engage in agriculture business in comparison to allied agriculture business. Most of the people use trucks and least people use private vehicles for their transportation facilities.72 percent of intermediaries have not their own warehouse facility and only 28 percent have their own warehouse.

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

Introduction

Availability of the product to the consumer or end user at the right time to the right place is the success key of any business organization. By adopting better supply chain management customer or consumer are more satisfied and the profit of business organization increases .Supply chain management consists of inventory, transportation, warehouses facilities to the business intermediaries etc. Wholesaler, retailer, agent or both are come under business intermediaries .Before reaching to the consumer or customer product passes through different distribution channels. Transportation mode, warehouse facility, government help etc. are help to supply the product to the customer or consumer.

Better availability of product increases the supply chain management at a great extent .Supply chain management can improve by the help of various factors like government role,

awareness of the business intermediaries in the particular industry or region. The role of the government is to increase the size of the particular industry. Thus, big marketers attract towards the factors like better transportation facility, warehouse availability, training and skills, involvement of banking. Thus, there would be increase in domestic and international competitiveness in particular industry.

In the area of agriculture and allied agricultural activities Uttar Pradesh have great contribution. Uttar Pradesh has large population mainly depend on agriculture .Uttar Pradesh secured first rank in the production of wheat in India. Total population of Uttar Pradesh is 19,98,12,341 (As per 2011 census) which contributes 16.51 percent of the India's population . 20 agro-climatic zones are exist in Uttar Pradesh.8 soil groups present in it.Total rural population in Uttar Pradesh is 15,53,17,278 which contributes 77.73 percent of India's total population (As per 2011 census). Uttar Pradesh has secured first rank in the total rural population of India. The growth rate of rural and urban population in Uttar Pradesh have 17.96 and 28.82 percent during 2001-11.The total population of Ayodhya is 450,899 (2011 Census). The area of Ayodhya is approx.79.8 square kilometer. There are mainly 11 blocks, 835 Gram panchayats,3 town area,1 municipal corporation, and 1272 villages in Ayodhya.Large number of business intermediaries are attracted towards the business of agriculture and allied agriculture commodities.

The research study is conducted in Masaudha, Bikapur and Sohawal market. In these markets a large number of wholesalers and retailer of various products like textile products, luxury products etc. are present. The major "Mandi" is located in Ayodhya are Sabzi mandi Ayodhya and Ayodhya Rama Mandi .Agriculture items includes Wheat ,Rice, Pulses etc. whereas allied agricultural commodities i.e. milk ,Curd, vegetables fruits and agricultural seeds etc. exists in these market.

In the previous literature on supply chain management it emphasize on various , functions models, logistics, transportation and inventory management of the supply chain management. As per Literature Review, none of the studies focused on the business intermediaries i.e. wholesalers and retailers as they are the important element in supply chain management of rural market .In this paper, we have considered three rural markets i.e. Masaudha, Bikapur and Sohawal market. In this study, it is mainly considered as intermediaries of agriculture and allied agriculture or both. In this study, it is mainly focused on various problems and challenges faced by the wholesalers, retailers and agents of these markets. Various issues have also been discussed in this paper.

The main purpose of the study is to highlight on the problems and challenges, pros and cons in Ayodhya district of Uttar Pradesh. This research study is also an attempt to validate the results of few previous studies based on the same analysis.

Research Objectives

The following are the objectives of this research studies:

- 1-The study of the analysis of various problems and challenges faced by different business intermediaries in rural market of Ayodhya.
- 2-The analysis of the availability of various facilities i.e. warehouse, transportation etc. to business intermediaries in rural market of Ayodhya.

Percentage calculation method is adopted to find out the answers of the objectives. The research study organizes in the following manner. In this paper, Section II consists of review of literature, Section III contains analysis result & discussion and Section IV includes conclusion of the study.

Review of Literature

In this paper, researcher focuses on the different problems and challenges related to various business intermediaries i.e. wholesalers, retailers or both. Business intermediaries performed an important role in the process of Supply Chain Management (SCM) in rural market of Ayodhya. The literature review helps to identify the research gap. **Mentzer, et al, 2001** has observed on the difference between the supply chains as a phenomenon used in business and their management. He focuses on the Supply Chain Management (SCM) as a phenomena included in business. **Heskett; et.al** emphasized on the concept of distribution, coordination and physical flow of materials in the whole supply chain. **Smykay et .al** focuses that inbound and outbound movements are involves in the business logistics. He has made the concept of integration and synchronization which are the concept of SCM.

Forrester observes on the integrated nature of organizational relationship and given a theory of distribution management. He observes between the company functions and between the company and its markets, industry etc. **Mentzer et, al.** gave a model of supply chain management shows flow from inter-functional coordination. It study covers trust, commitment, dependence, behavior to Inter-corporate coordination .This model consists of marketing, sales, research development, forecasting, production, purchasing, logistics etc .This flows enhances the customer satisfaction and profitability of the firm.

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

Data and Methodology:

The research study is based on primary source of data. To collect the data simple random sampling are used. The data has been collected from three markets of Ayodhya i.e. Masaudha, Bikapur and Sohawal, Uttar Pradesh on 22–23 Feb, 2020. Views of 50 respondents are taken. In this paper, personal interview methods are used. Sample consists of various business intermediaries i.e. wholesalers, retailers and agents, based on agriculture and allied agriculture. About 32 percent of the sample respondents are distributors, 48 percent are retailers, 08 percent are agents and 12 percent are both wholesalers/retailers.

Table 1: Sampling Details

Categories		Actual Sample size	Percentage
Government Registration	Registered	46	92
	Not Registered	04	08
	Total	50	100
Business Intermediaries	Wholesalers/Distributors	16	32
	Retailers	24	48
	Agents	04	08
	Wholesalers/Retailers	06	12
	Total	50	100
Markets	Masaudha	15	30
	Bikapur	20	40
	Sohawal	15	30
	Total	50	100
Qualification of Owners/Entrepreneurs	Senior Secondary	21	42
	Higher Secondary	16	32
	Graduation	08	16
	Post-Graduation	05	10
	Total	50	100
GST Number	With GST Number	45	90
	No GST Number	05	10
	Total	50	100
Own Warehouse Facility	With warehouse availability	14	28
	No warehouse availability	36	72
	Total	50	100
Mode of Transportation	Private vehicle	18	36
	Buses	0	0
	Trucks	32	64
	Railways	0	0
	Airlines	0	0
	Total	50	100

Source: Primary survey conducted on 22–23 Feb, 2020 in Ayodhya

Results and Discussion

For the analysis of data, researcher filled the questionnaire by the 50 respondents they are the distributors or retailers of agricultural products i.e-wheat, rice, maize or allied agricultural products such as curd, milk, fruits, vegetables etc. in three markets i.e .Masaudha, Bikapur, and Sohawal market. The following are the analysis of data -

1-Registered Retailers or wholesalers: There is a 92% registered retailer or wholesalers are present in Masaudha, Bikapur and Sohawal markets.

S.No.	Number of wholesalers or retailers of rural market	Percentage of registered wholesalers or retailers
1	50	92

The retailers or wholesalers are aware about the registration. Maximum number of retailers are registered it shows that they follow the business ethics.

2-Region where survey is done:

S.No.	Number of wholesalers or retailers of rural market	Region where survey is done
1	50	Masaudha, Bikapur and Sohawal market

The survey is done in Ayodhya region of Uttar Pradesh in Masaudha, Bikapur and Sohawal market. In these rural areas people are mainly depend on agriculture or trading of allied commodities such as business of milk, Curd, fruits etc. The interview is conducted on 50 wholesalers or retailers.

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	36	64	Above 50 Lakhs/annum

About 64% of retailers has no any turnover .36% of retailers or wholesalers have turnover.They are the big wholesalers or distributors, their average turnover are appr. Above 50 lakhs/annum.It shows that retailers or wholesalers have limited number of turnover.36% 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	32	48	08	12

Thus, retailers have large number of percentage i.e. 48 and agents have less percentage i.e.08 in rural market of Ayodhya region. Percentage of both Wholesalers and retailers are 12 in numbers.

5-Qualifications:

S.No.	% of Xth pass	% of XIIth pass	% of UG Pass	% of PG Pass
1	42	32	16	10

Thus, 42% retailers or wholesalers have Xth passed, 32% have XIIth passed and 16% have UG passed and 10% have PG passed.Thus,the maximum percentage are of Xth passed.PG passed people have least percentage. This shows that people are less interested in study at higher education and more concerned about trading business.

6-Dealings:

Sl. No.	Percentage of agricultural items	Percentage of Allied agricultural items	Percentage of both
1	72	16	12

Hence, the dealings of maximum items are of agricultural items such as wheat, rice, pulses etc. in rural market of Ayodhya region. The productions of agricultural items are more in these areas. People are more comfortable in trading business of agricultural items. Both Allied agricultural items such as milk, curd etc. and agricultural items have less percentage i.e. 12 in these markets.

7-Getting on time material from manufacturing/supplier:

S.No.	Per. of Less time	Per. of Below Average time	Per. of Average time	Per. of Above average time	Per. of More time
1	22	24	37	13	04

About 22% retailers or wholesalers are agreeing to get on less time material from manufacturer/Supplier, 24% to get the material on below average time, 37% receive the product on average time, 13% are of above average time and 04% take more time to supply. It takes average time to get material on time from the manufacturer or supplier. The main reason is that the transport facilities are average.

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	15	30	38	09	08

Thus, 38% of retailers and wholesalers of rural market have average product range. It is maximum in percentage. 8% have more product range, 30% have below average range, 15% have less product range and 09% have above product range. It means that percentage of average range is maximum i.e. 38 and percentage of more range are least in numbers i.e. 8%.

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	36	0	64	0	0

Large number of retailers or wholesalers used trucks i.e. 64%, 36% retailers and wholesalers used private vehicles, 0% used buses, railways and airways. It shows that the large number of retailers or wholesalers receives the product in bulk from their big supplier's. Small retailers or Wholesalers 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

As own warehouse availability is concerned 28% of wholesalers or retailers have their own warehouse whereas 72% of retailers have not their own warehouse. Thus, average or small retailers are more in this market.

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	31	59	06	04	0

Thus, 31% of retailers or wholesalers agreed to provide less financial aid by the government, 59% supports below financial aid, 06% agreed average financial aid and 04% supports above average financial aid and 0% says to provide more financial aid by the government. Maximum retailers agreed that government does not provide any financial aid in these areas. The process is so complex, it takes long time 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	22	69	09	0	0

Hence, 69% retailers or wholesalers supports below government help, 22% supported less government help, 09 % agreed average government help 0% says above government help and supported more government help respectively. Most of the retailers say that in case of any loss no help is provided by the government immediately. It takes long time for recovery of loss. Thus they are less concerned to take government help in case of recovery or loss from the government.

13-Training and skills provided 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 Ayodhya region say that government does not provide any training and skill development programs to them. Maximum retailers say that training program should be provided by the government related to their concerned business.

14-GST Number:

S.No.	Percentage of retailers or wholesalers have GST number	Percentage of retailers or wholesalers have no GST number
1	90	10

90% of retailers or wholesalers in rural market of Ayodhya region have GST number whereas 10% have no any GST number as 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	07	0	50	26	17

Hence,07% retailers says that customers are less satisfied 0% are below satisfied.50% retailers says that customers are average satisfied,26% retailers agreed that customers are above average satisfied and 17% customers are more satisfied. Most of the customers are average satisfied from their retailers or wholesalers. Wholesalers or retailers also focus to provide a better quality product to their customers.

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	30	47	13

In this paper, 47% of retailers have above average response, 13% have more response, 30% have average response, 10% have less response and 0% has below response by their big supplier or manufacturer. Most of the retailers have good relationship from their manufacturer or supplier. The main reason is that retailers give better business and take more and more order from their wholesalers. Retailers are sincere to their business so as to give more profit to their suppliers.

Findings & Conclusions

This research paper shows that in Masaudha,Bikapur and Sohawal market out of 50 respondents in Ayodhya region 92 percent of business intermediaries wholesalers ,retailers or both are registered, 72 percent intermediaries' deals agricultural items whereas, 16 percent intermediaries deal with allied agricultural items and 12 percent deals in both. There are 64 percent business intermediaries uses trucks while 36 percent uses private vehicles for their transportation facilities. The situation of having any type of warehouses whether own or government is also not good. There are 72 percent intermediaries do not have their own warehouse facility and 28 percent of big wholesalers or retailers have their own warehouse in Ayodhya region .There is less government support in terms of financial aid.69% agreed below government help, 22% supports less government help and 9% support average government help, 0% support above government help and more government help respectively.100% retailers or wholesalers supports that no any training and skill development programs are provided by the government to them .90 percent intermediaries have GST number and other 10 percent do not have GST number. Most of the retailers supports that 50% customer or consumer are average satisfied,26% have above average satisfied,17% supports of more satisfied and 07% supports less satisfied. 47% respondents or Wholesalers agrees above average response from their big supplier/manufacturer,30% of retailers wholesalers have average response ,13% have more response and only 10% retailers or Wholesalers have less response from their big suppliers or manufacturer. Thus, maximum wholesalers or retailers have above average response from their big suppliers/manufacturer.

Limitations of the Study: Limitations of this research paper are as follows:-

- 1-The above research study covers only three rural markets of Ayodhya region i.e. Masaudha, Bikapur and Sohawal market.
- 2-This research study does not focused on other rural markets of Uttar Pradesh accept Masaudha, Bikapur and Sohawal market of Ayodhya region.
- 3-There is limitation to the markets .i.e. the sample size of Masaudha, Bikapur and Sohawal is 15,20,15 respectively.

Recommendation: The recommendations to the government are as follows-

- 1-The government should provide proper training and skill development programs to the retailers wholesalers or both in the rural market of Ayodhya region so as wholesalers or retailers do their business in more efficient and effective way.
- 2-There should be flexibility to provide loans in case of any loss or any miss happening. the recovery process should not be more complex, it should be simple so as the retailers or distributors easily adopt it.

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