Bangladesh J. Agric. Econs XXVII, 2 (2004) 99-106

Research Note

PROFITABILITY AND PROBLEMS OF EXPORTING FRESH VEGETABLE FROM BANGLADESH

S. A. Sabur
M. S. Palash
Khairunnahar

ABSTRACT

The study was undertaken to examine the profitability of producers, margin of traders and problems encountered by exporters of fresh vegetables. In the export marketing chain the vegetables farmer sold three fourth of vegetables to the Bepari/ Selected agents. Vegetable producers received average profit of Tk. 32 by spending Tk. 100 as production cost. The agents received Tk. 12 to 13 by investing Tk. 100 within very short period of time. The study reveals that it is more profitable to export vegetables to Asian countries compared to Middle East countries. The scarcity of cargo space, high cost of airfreight, plane delay and lengthy custom procedure, low quality of packaging, poor quality of vegetables, seasonality of production and high domestic prices, lack of domestic transportation, lack of insufficient storage management, inadequate market information and off load were the major problems faced by vegetable exporters.

I. INTRODUCTION

The export sector plays a vital role in determining the rate and structural pattern of the development of any country. A tropical location, lush greenery, moisture-rich loamy soil and production friendly climate make Bangladesh one of the notable growers of a vast range of fruits and vegetables of impeccable quality. Vegetable can be identified as a significant one for our economy for its noteworthy contribution in raising the exchange earnings and occupies an important position among the items exported from Bangladesh. More than sixty different vegetables of both local and exotic types are grown in Bangladesh mainly on the flood free land and homestead. Total area under vegetables production is 0.17 million (1.2 per cent of cultivated area) hectares and production there of is 4859 thousand metric ton during 2002-03 (BBS, 2003). About fifty varieties of fresh vegetables are now exported from the country.

Bangladesh earned taka 2423.58 million from export of agricultural product in 2003-2004 which contribute 0.54% to total export earning. Bangladesh earned taka 1456.33 million from export of vegetables in 2003-2004, which contributes 0.32% of total export earnings (Export statistics 2003-2004). So, Bangladesh has immense prospect for exporting fresh vegetables to the world market. But exploitation of this potential needs a well-developed and systematic export promotion programme of vegetables, which will have a significant impact

The authors are respectively Professor, Lecturer and Ex-postgraduate student, Department of Cooperation and Marketing, Bangladesh Agricultural University, Mymensingh.

on both agriculture and economic development. The exports of vegetable directly benefit the rural poor. Increases in exports certainly raise the income of the rural poor and cater to the alleviation of rural proverty through generating rural development. Realizing the increasing importance of vegetable export, the present study was undertaken to analyze the existing system, returns and problems associated with vegetable exporting from Bangladesh.

II. METHODOLOGY

For conducting this study both primary and secondary data were used. Both survey and observational methods were followed to collect primary data. Some of the information on structural and the organizational characteristics of the marketing systems were obtained by observational method. The study areas were selected purposively considering the presence of export-oriented firms and the collection areas of exportable vegetables. Primary data were collected from two markets namely Kawaranbazar and Shambazar of Dhaka city and two vegetable producing areas namely Munshigonj Sadar and Belabo of Narsingdi district. Twenty-five intermediaries and twenty different vegetable producers were chosen purposively from the selected markets and areas respectively. Besides, fifteen different types of vegetable exporters were selected from Dhaka city for this study (Detail methodology is given in Nahar, 2005). Secondary data were collected from different sources like EPB, DAM, FAO, Hortex Foundation, BRAC center and from various journals and reports.

II. MARKETING CHAIN

Fresh vegetables flow through two kinds of marketing chains in selected study areas; for local consumption and for export. Marketing chains of vegetables exported as found in the

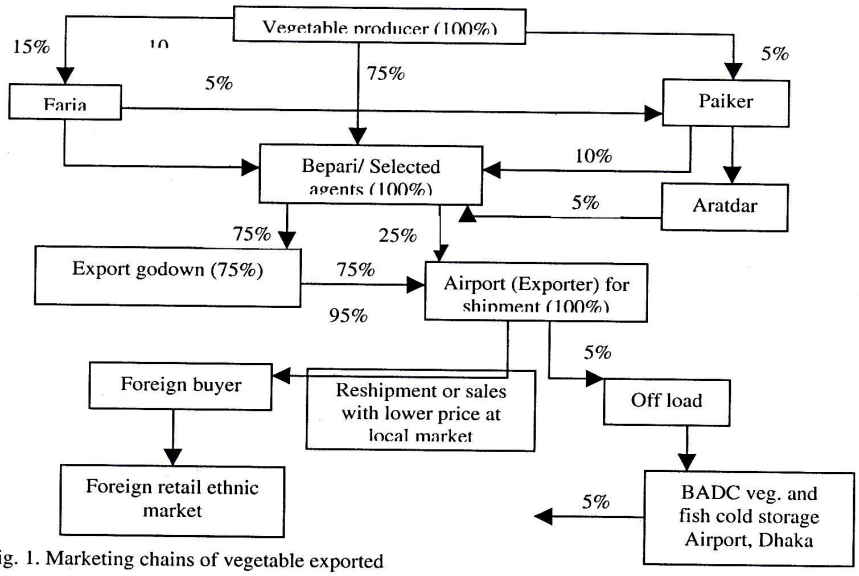

Fig. 1. Marketing chains of vegetable exported

study areas are shown in figure 1. The three fourth of total vegetables exported moved from the producer to the vegetables exporters through Bepari/ Selected agents. The remaining portion moved through varying number of intermediaries or middlemen such as Faria, Paiker who have specific designation according to the role that they play in the whole chain.

III. PRODUCTION COST AND RETURN OF VEGETABLE GROWERS

Table 1 shows per decimal production cost of selected vegetable growers. The average estimated production cost was Tk. 228.05 for potato, Tk. 878.79 for brinjal, Tk. 739.42 for bitter gourd, Tk. 398.09 for sponge gourd, Tk. 221.21 for lady' s finger and Tk. 325 for ridged gourd. Net returns per decimal were estimated at Tk. 154.35, Tk. 139.39, Tk. 358.28, Tk. 187.37. Tk. 108.08 and Tk. 120.20 for potato, brinjal, bitter gourd, sponge gourd, lady's finger and ridged gourd respectively. The benefit-cost ratio indicates that vegetable producers received average profit of Tk. 32 by spending Tk. 100 as production cost.

Table 1: Cost of vegetable growers Tk. per decimal)

Items	Potato	Brinjal	Sponge gourd	Bitter gourd	Lady's finger	Ridged gourd	Average of all
Land preparation	54.55	18.18	34.30	34.28	34.28	100.00	45.93
Seed	136.36	24.24	5.50	20.00	5.50	5.00	32.77
Fertilizer	53.12	272.73	54.86	73.71	10.00	10.00	79.07
I Irrioation	12.12	181.81	32.00	91.43	50.00	50.00	69.56
Insecticides	42.42	24.24	11.43	11.432	11.43	40.00	23.49
Intercultural Operation And Harvesting	66.66	327.27	60.00	308.57	60.00	60.00	147.08 i
Bamboo stick	-	30.30	200.00	200.00	100.00	60.00	98.38
Others	6.06	-	-	-	-	-	1.01
Total cost	338.05	878.79	398.09	739.42	221.21	325.00	497.29
' Gross return	492.39	1018.18	585.46	1097.70	329.29	425.20	658.04
Net return	154.35	139.39	187.37	358.28	108.08	120.20	160.75
Benefit-Cost ratio	1.46	1.16	1.47	1.48	1.49	1.31	1.32

IV. MARKETING COST Marketing cost of Beparis / Selected agent

The marketing costs of Beparis/ Selected agents of potato for Munshigonj and other vegetables for Narshingdi area are shown in table 2. The average estimated marketing costs per metric ton incurred by Bepari/ Selected agents were Tk. 355.30 for potato and Tk. 1431.67 for other vegetables. Among cost items, cost of transportation was the highest representing 56 per cent and 84 per cent of total cost for potato and other vegetables respectively. The second highest cost item was wastage/ loss of weight, which accounted for 14.62 per cent for potato and 3.51 per cent for other vegetables. Other cost items in

descending order were bagging, grading, loading and unloading, market toll, rent and personal expenses. For being perishable commodities Beparis have to adopt special care to carry veaetables from distant markets. That is why, transportation and wastage costs were higher. The wastage loss ranged between 4 to 15 per cent of total quantity marketed. The main cause of losses was damage due to rough handling and theft.

Table 2: Marketing cost of selected vegetables incurred by Beparis / Selected agents (Tk. per Metric ton)

Cost items	Potato	Other vegetables
Transportation	200.00 (56)	1200.50 (84)
Bagging	35.50 (9.94)	45.45 (3.18)
Loading and Unloading	25.25 (7.07)	30.15 (2.11)
Grading	5.00 (1.4)	5.00 (0.35)
Wastage / loss of weight	52.20 (14.62)	50.20 (3.51)
Rent	5.50(t.54)	30.12 (2.11)
Market toll	10.00 (2.80	30.00 (2.10)
Tips and donation	5.70(l.59)	10.25 (0.72)
Personal expenses	10.48 (1.93)	15.00 (1.05)
Miscellaneous	5.67(l.59)	15.00 (1.05)
Total	355.00 (100)	1431.67 (100)

Figures in the parentheses indicate percentages

Marketing cost of vegetable exporters

The marketing cost of different types of exporters depends on foreign destination, amount of exportable vegetables per shipment, items of exportable vegetables, condition of consignment etc. The European Union (EU) countries are the largest common market in the world, with 372 million consumers in 15 member countries. Middle East market mainly includes Riad, Dubai, Muscat, Abudhabi, Bahrain and Kuwait markets. The main Asian countries include Malaysia, Singapore, Srilanka, Pakistan, Hong Kong etc. Airfreight charge was the major marketing cost to export vegetables in different countries. The marketing cost of exporters is shown in Table 3. The average estimated marketing costs incurred for exporting vegetables to EU, Middle East and Asian countries were Tk. 105946.60, Tk. 69563.89 and Tk. 57686.25 per metric ton respectively. Among all the cost items airfreight charge was the highest cost item comprising 83.85 percent, 78.31 percent, and 75 percent of total cost for EU, Middle East and Asian countries respectively. The second cost item was packet / carton and it represents 2.64 percent, 4.03 percent, and 4.85 percent for those countries.

Table 3: Marketing cost of vegetable exporters (Tk. per Metric ton)

Cost items	EU countries	Middle East countries	Asian countries
Packet/Carton	2800 (2.64)	2800 (4.03)	2800 (4.25)
Packing materials e.g. rope, cost tape, thin paper etc.	200 (0.19)	200 (0.29)	200(0,35)
Grading & Packaging	2160(l.03)	2160 (3.02)	2160 (3.74)
Carrying from exporters godown to airport	1000 (0.94)	1000(l.44)	1000(l.73)
Cleaning & Forwarding (C&F)	100 (0.09)	1000(l.44)	1000(l.73)
Terminal Handling Charge (THC)	2460 (2.31)	2460 (3.54)	2460 (4.26)
Quarantine	100 (0.09)	100 (0,14)	100 (0.17)
Bank services	50 (0.05)	50 (0.07)	50 (0.09)
Airway bill charges (Documentation)	366.60 (0.34)	335.89 (0.48)	253.25 (0.44)
GSP certificate charge	350(0.33)	50 (0.07)	
Air freight charge	89200 (83.85)	54478 (78.31)	43283 (75.03)
EXP (Expert Perform)	300 (0.28)	300 (0.43)	300 (0.52)
Salary & Wages	2500 (2.35)	2000 (2.87)	1500 (2.60)
Office & Godown rate	1500(l.4)	1000 (1.44)	1000(l.73)
Telephone, Fax, Telex	800 (0.75)	500 (0.72)	500 (0.87)
Loading & Unloading	1000 (0.94)	1000(l.44)	1000(l.73)
Entertainment	100 (0.09)	80 (0.12)	50(0.09)
~ Miscellaneous	60 (0.05)	50 (0.07)	30(0.05)
Total	105946 (100)	69563.89 (100)	57686.25 (100)

Figures in the parentheses indicate percentages

V. MARKETING MARGIN

Marketing margins of Beparis / Selected agents:

The average gross margin of Beparis / selected agents was Tk. 1000 and Tk. 3000 per metric ton for potatoes and other selected exportable vegetables respectively. (TableS) The corresponding marketing cost was Tk. 355.3 and 1431.67 per metric ton. So profit as percentage of total investment was estimated to be 13.28 and 12.13 per cent for potatoes and other vegetables respectively. That means the agents received Tk. 12 to 13 by investing Tk. 100 within very short period of time (usually within one week).

Table 5: Marketing margin of Beparis / Selected agents.(Tk per metric ton)

Particulars	Potato	Other vegetables
A. Average sale price	5500.00	14500.00
B. Average purchase price	4500.00	11500.00
C. Marketing margin	1000.00	3000.00
D. Marketing cost	355.30	1431.67
E. Profit (C-D)	644.70	1568.33
F. Total capital invested (B+D)	4855.30	12931.67
G. Profit as percentages of total working capital	13.28	12.13

Marketing margin of exporters

The gross marketing margin of exporters is depicted in Table 6. The average gross margin of exporters was Tk. 216170, Tk. 74925 and Tk. 69025 per metric ton for EU, Middle East countries and Asian countries respectively. The exporters incurred marketing cost of Tk. 10594660, Tk. 69563 and Tk. 57686.25 per metric ton for EU, Middle East and Asian countries respectively. Thus net margin (profit) earned by them was Tk. 110223.40, Tk. 5361.11 and Tk. 11338.75 per metric ton, which represent 89.54, 6.40 and 15.80 per cent of total investment for EU, Middle East and Asian countries respectively. Thus the study reveals that it is more profitable to export vegetables to EU countries compared to Middle East and Asian countries because of

Table 6: Marketing margin of vegetable exporters (Tk per metric ton)

Particulars	EU countries	Middle East	Asian countries
Average sale price of selected vegetables	233320.00	89175.00	83025.00
Average purchase price of selected vegetables	17150.00	14250.00	14000.00
Marketing margin	216170.00	74925.00	69025.00
Marketing cost	105946.60	69563.89	57686.25
Profit	110223.60	5361.11	11338.75
Operating capital	123096.60	83813.89	71686.25
Profit as percentage of operating capital	89.54	6.40	15.80

the fact that the marketing margin compared with marketing cost of EU countries is much higher than that of Middle East and Asian countries. Although profit is the highest in the case of exporting to EU countries, there exists lot of formalities and risks for exporting in these countries.

VI. PROBLEMS FACED BY THE VEGETABLE EXPORTER

The scarcity of cargo space

The exporters have to pay a high rate of airfreight charge for the space in the aeroplanes, because Bangladesh has no special cargo planes. This problem particularly arises during the hot season from June till October, when demand is almost double the existing cargo capacity.

High cost of airfreight

The comparative airfreight rates were higher for Bangladesh than other developing countries of the world. Bangladesh might lose competitiveness in vegetable exports to neighboring countries like India, Sri Lanka and Pakistan and other competitors like Kenya due to a 10 per cent hike in airfreight by Biman Bangladesh Airlines from March 1, *2005*.

Plane delay and lengthy custom procedure

Delay in arrival of Biman aircrafts at different destinations caused huge damage of vegetable exported. In Bangladesh, unnecessary and lengthy custom procedure made serious troubles for the exporter leading to failure of timely shipment which caused a great damage to the fresh vegetables exported. This is mainly brought about by adhering to cumbersome formalities.

Low quality of packaging

Packaging of Bangladeshi vegetables consisted on mainly round bamboo baskets and second hand cartons of different shapes. As a consequence, the vegetables are not properly positioned and become misshaped and damaged. Moreover, the second hand cartons usually has no ventilation holes and do not have the necessary strength, which cause bruising of the vegetables.

Poor quality of vegetables

The quality of Bangladeshi vegetables is not acceptable by the foreign buyers and some of the countries have stopped importing Bangladeshi vegetables because of poor quality standards. Especially during the summer months, shelf life of the vegetables becomes extremely limited.

of production and high domestic prices

The demand for traditional primitive vegetables (e.g. French bean, bitter gourd, snake gourd, stolon of taro, green chili, palwal etc.) of Bangladesh was more. Among the main export items, most are highly seasonal and very few are available year round. The domestic prices of the seasonal vegetables are often too high during the early part of the season making it unprofitable for the exporters.

Lack of domestic transportation

Bangladesh exporter cannot compete in the world market, as the modes of domestic transports are not especially designed for the carrying the vegetables from farm gate to export point.

Lack of sufficient storage management

After collection of vegetables from the field, there is no appropriate system to make them reach direct to the airport or exporters godown for which vegetables are often wasted.

In adequate market information

The exportable vegetables prices in major foreign markets depend on numerous day-today market factors whereas the exporters do not get any current market information on a regular basis on several marketing variables like price, quantity, promotion, distribution channels, consumer's choice, legal requirements and so on.

Off load

Due to lack of sufficient cargo space of Bangladesh Airlines, the quantity of vegetables, which is returned to the exporters, has to be sold at a very low price in local market or has to be stored in BADC fish and vegetables cold storage at Zia International Airport. This is a serious problem in exporting vegetables from Bangladesh.

VII. CONCLUSION

Bangladesh seemed to have a high potential for export development of horticultural crops, particularly in vegetables. She has got the natural advantage of fertile soil, favorable climatic condition and abundant supply of inexpensive labour force. The export of fresh vegetable is more profitable due to high value addition. Vegetable producers received average profit of Tk. 32 by spending Tk. 100 as production cost and agent received Tk. 12 to 13 by investing Tk. 100 within very short time. Profit earned by exporters shows that exporting vegetables to Asian countries is more profitable compared to Middle East countries. Although profit is the highest for exporting to EU countries there involved lot of formalities and risks for exporting to these countries. Therefore, emphasis should be given to exporting vegetables to Asian countries by making available vegetables to the consumers of these countries based on their choice and preference. To enter into the super markets in developed countries, quality of vegetables has to be improved by upgrading the packaging, handling, grading and transportation system. Finally, the country would be able to earn huge foreign exchange if the Government introduces a cargo aircraft to carry vegetables items.

REFERENCES

Bangladesh Bureau of Statistics (2003) Statistical pocket book of Bangladesh, Govt. of the People's Republic of Bangladesh, Dhaka, Bangladesh.

Export Promotion Bureau (2003-04) Bangladesh Export Statistics, Dhaka, Bangladesh.

Nahar, K. (2005) Export of Fresh Vegetables from Bangladesh: Problems and Prospects, Unpublished MS thesis, Dept. of Cooperation & Marketing, Bangladesh Agricultural University, Mymensingh.