

AN ESTIMATION OF MARKETING MARGINS IN THE SUPPLY CHAIN OF TOBACCO IN DISTRICT FAISALABAD, PAKISTAN

Muhammad Babar Hussain¹, Manan Aslam², Shafqat Rasool³

¹ Department of Agribusiness and Information Systems,
University Putra Malaysia, MALAYSIA,

^{2,3} Institute of Business Management Sciences (IBMS),
University of Agriculture, Faisalabad, PAKISTAN.

¹babar2086@yahoo.com, ²sirfmanan@yahoo.com, ³shafqat_1797@yahoo.com

ABSTRACT

This paper attempts to estimate marketing margins of major intermediaries involved in the supply chain of tobacco in Faisalabad district using primary data. Formal interviews were conducted from a representative sample of 80 farmers, 40 wholesalers and 40 retailers that represent middlemen in the supply chain of tobacco. Findings of the study indicated, wholesalers earned Rs.11 and Rs.18 per kilogram as net margin in the case of tobacco choora and tobacco rope respectively. Similarly the net margin of retailers was estimated as Rs.23 and Rs.17 per kilogram for choora and rope types of tobacco respectively. High marketing margins beyond the limits is just the exploitation for the tobacco farmers as well as consumers. The government should adjust the marketing margins to a reasonable level in order to smooth facilitation of the marketing functions in the tobacco supply chain.

Keywords: Supply chain of tobacco, marketing margins, tobacco choora, tobacco rope

INTRODUCTION

Agriculture is the backbone of Pakistan's economy. Despite the fact that the structural changes in the economy that occurred in Pakistan since independence, the share of agriculture in GDP is declining, but is still the largest economic sector, which accounts for 21.4 percent of GDP, employs 45 percent of the most honest labor. More than 62 percent of the country's population lives in rural areas and are directly or indirectly linked with agriculture for their livelihood. The agricultural sector also has inputs and agro-based industries accounted for a modest 1.2 percent growth in 2011-12 and provide much needed support to increase exports (GOP, 2012).

The role of tobacco is defined by the fact that it earns 10% of total government revenue and 40% of all government excise taxes in Pakistan by tobacco and its products. During 2010-11 the production and area of tobacco is respectively 104,000 tons and 49,000 hectares. The production of tobacco and the area under cultivation both decreased by 1.0 percent during the given year (GOP, 2011).

The usage of tobacco in Pakistan is frequent but the uppermost in the South East Asian Region and approximately above 23 million smokers in the country and there are 55 percent of the household that have minimum one human being who smokes tobacco. Pakistan accounts for a significant portion of cigarettes addicted in South Asia. Tobacco does not occur only in the form of cigarettes but also includes bidi's, huqqa (water pipe) and chewing tobacco. The following types of the tobacco are commonly used in Pakistan, white patta, burley, flue cured virgina, light sun cured, semioriental, ropes and choora (GOP, 2011).

In 2007-2008, more than Rs. 36.38 billion contribute to the federal Minister of Finance to the

central excise duty and sales tax. Since labor-intensive crops, about 80,000 people took part in the production, 50,000 participate in 26 factories in the tobacco industry and the other is to find a million indirect jobs. It is also an important source of foreign exchange earnings of the country (U.S. \$ 5.676 million in 2007-2008). Manufacture of tobacco culture in Pakistan Tobacco Board did not develop scientific lines; the country imported raw materials worth Rs.7-8 billion per year in 2008-2009 (PTB, 2009).

The main source of tobacco smuggling in Pakistan is Afghanistan Transit Trade of the facility. While, government of Pakistan prohibited the imports of tobacco transit trade to Afghanistan since 1992 but there is no evidence for the effective implementation of the law. Tobacco is also entered into Afghanistan to the Iranian port Bandar Abbas Sea through the airport and tobacco smuggling is generally not taken serious by the authorities in Pakistan (Iqbal, 2011).

Tobacco supply chain is more or less similar to other agricultural products. The tobacco products were marketed in the wholesale market and retailers and end-users through agents who are on commission basis. Tobacco tends to be marketed either at farm-gate or through middleman (Cholan, 2007).

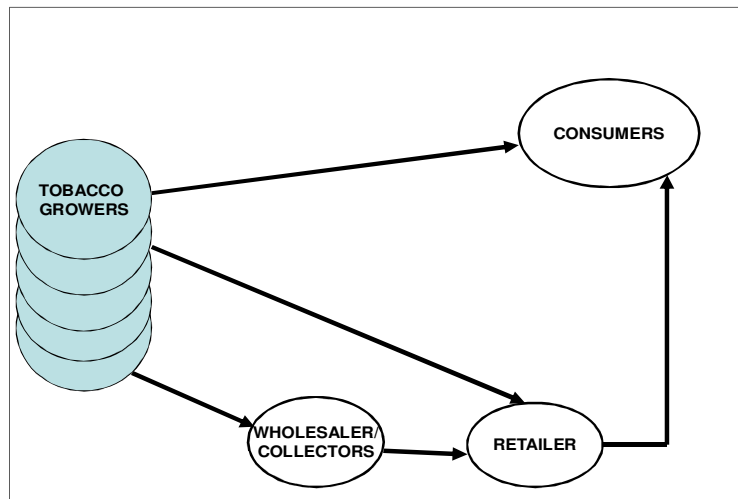


Figure 1. Existing Supply Chain of Tobacco in Faisalabad District

The marketing margin or a price spread is a commonly used measure of the performance of the supply chain (Abbott & Makeham). It can be a useful statistics showing how the consumers' expenditure is divided among market participants at different levels of the supply chain. It is defined as the difference between what individual consumer pays and the price that is obtained from producers, or as the cost of a collection of middlemen services in the supply chain, which is the outcome of the demand for and supply of such services. There are many problems in the existing supply chain of tobacco. There is a need to control quality and improve the marketing system to increase consumption. Unfortunately, this quality potential was never materialised largely due to the marketing anomalies prevalent in the tobacco markets that impeded the incorporation of the desired technological perfections. As such, a detailed investigation is imperative. For the improvement of existing supply chain, it is necessary to conduct the study to explore the current marketing practices and margins, and the role of various stakeholders in the supply chain. The study will also quantify the effect of major variables affecting consumption of tobacco.

Many studies are available which estimated marketing margins for major crops that include (Partadiredja, 1971) for rice, (Kohl & Uhl, 1972) marketing of agriculture products, (Khushk & Smith, 1996) for mango, (Ishaq *et al.*, 2006) for citrus, (Cholan, 2007) for broiler, (Zeb & Khanfor, 2008) peach, (Adinya, 2006) for groundnut, (Khushk *et al.*, 2009) for dates, (Aslam *et al.*, 2013) for seed cotton etc. Only few studies are available which estimated marketing margins of tobacco. The present study was conducted to estimate marketing margins of major intermediaries involved in the supply chain of tobacco in the district of Faisalabad.

METHODS

Methodology includes the tools and techniques of collection and analysis of data; this is applied particularly for testing the hypothesis. The aim of research was to estimate margins of major intermediaries involved in the supply chain of tobacco in district Faisalabad. In order to achieve objectives of the study, planned strategy was undertaken to select area, type and number of respondents. Without taking these considerations it would be a futile effort. The paper is based on primary data collected through a comprehensive and pre-tested questionnaire from 80 tobacco farmers, 40 wholesalers and 40 retailers from two tehsils i.e. Jaranwala and Summandri of district Faisalabad for the year 2013. Stratified random sampling technique (proportional allocation) was used to select the sample. Margin analysis was used to measure the margins of commission agents and retailers. The percent marketing margin was estimated using the following formula.

$$MM = Ps/Sp * 100$$

Where; MM = Marketing Margin

Ps = Price spread

Sp= Sale price

Price spread = Sale price – Purchase price

Gross marketing margin was estimated employing the following formula.

$$GM = Sp - Pp$$

Where; GM = Gross Margin

Sp= Sale price

Pp= Purchase price

Net marketing margin was estimated using following formula.

$$NM = GM - TC$$

Where; NM = Net Margin

GM= Gross Margin

TC= Total cost

RESULTS AND DISCUSSION

Marketing margins are indicators of trends in costs, profits and services provided by farmers and food marketing firms. This is the difference between what the consumer pays for food and what the farmer receives. It is also calculated as the percentage share received by each marketing intermediary. There is a strong cumulative effect on the marketing margin resulting from the increasing number of intermediaries involved in marketing process. The tobacco supply chain in Pakistan from producer to consumer is relatively simple as compared to other commodities and consists of tobacco farmers, wholesalers, retailers and consumers.

In this section empirical findings of marketing margin analysis of supply chain of tobacco in district Faisalabad is presented and discussed.

Marketing Margins of Wholesaler for Tobacco Ropes (Rs. / kg)

The wholesaler was purchasing tobacco rope on an average Rs. 123.75 per kg and was selling to another stakeholder on an average Rs. 145.75 per kg. The gross marketing margin of wholesaler was Rs. 22 per kg out of this marketing cost was Rs. 6 per kg. So the net margin was Rs. 18 per kg. In the marketing chain of tobacco rope in district Faisalabad, wholesaler was getting 15.09 percent of the total margin of the marketing chain. The net profit as percentage of sale price was 12.34 percent. In gross margin of wholesaler, marketing cost contributed 18.19 percent whereas rest of the 81.81 percent was the profits of wholesaler. Total costs include transportation and labor cost (loading and unloading) etc.

Average purchase price (Rs. / Kg)	= 123.75
Average sale price (Rs. / Kg)	= 145.75
Gross marketing margin (Rs. / Kg)	= 22
Percent marketing margin	= $22/145.75 \times 100 = 15.09$ percent
Average total costs (Rs. / Kg)	= 6
Net Profit (Rs. / Kg)	= $22 - 6 = 18$
Net Profit as percentage of margin	= $18/22 \times 100 = 81.81$ percent
Net Profit as a percentage of sale price	= $18/145.75 \times 100 = 12.34$ percent

Table 1. Marketing Margins of the Wholesaler for Tobacco Ropes (Rs. / Kg)

Item	Avg. Sale Price	Avg. Purchase Price	Gross Margin	Total Cost	Net Profit Margin	Net Profit as % of Sale Price
Tobacco	145.75	123.75	22	6	18	
Percent			15.09	18.19	81.81	12.34

Marketing Margins of Wholesaler for Tobacco Choorra (Rs. / kg)

The wholesaler was purchasing tobacco choora on an average Rs. 83 per kg and was selling to another stakeholder on an average Rs. 100 per kg. The gross marketing margin of wholesaler was Rs. 17 per kg out of this marketing cost was Rs. 6 per kg. So the net margin was Rs. 11 per kg. In the marketing chain of tobacco choora in district Faisalabad, wholesaler was getting 17.00 percent of the total margin of the marketing chain. The net profit as percentage of sale price was 11.00 percent. In gross margin of wholesaler, marketing cost contributed 35.30 percent whereas rest of the 64.70 percent was the profits of wholesaler. Total costs include transportation and labour cost (loading and unloading) etc.

Average purchase price (Rs. / Kg)	= 83
Average sale price (Rs. / Kg)	= 100
Gross marketing margin (Rs. / Kg)	= 17
Percent marketing margin	= $17/100 \times 100 = 17.00$ percent
Average total costs (Rs. / Kg)	= 6
Net Profit (Rs. / Kg)	= $17 - 6 = 11$
Net Profit as percentage of margin	= $11/17 \times 100 = 64.70$ percent
Net Profit as a percentage of sale price	= $11/100 \times 100 = 11.00$ percent

Table 2. Marketing Margins of the Wholesaler for Tobacco Choorra (Rs. / Kg)

<i>Item</i>	<i>Avg. Sale Price</i>	<i>Avg. Purchase Price</i>	<i>Gross Margin</i>	<i>Total Cost</i>	<i>Net Profit Margin</i>	<i>Net Profit as % of Sale Price</i>
Tobacco	100	83	17	6	11	
Percent			17.00	35.30	64.70	11.00

Marketing Margins of Retailer for Tobacco Ropes (Rs. / kg)

The retailer was purchasing tobacco rope on an average Rs. 146 per kg and was selling to another stakeholder on an average Rs. 167 per kg. The gross marketing margin of retailer was Rs. 21 per kg out of this marketing cost was Rs. 4 per kg. So the net margin was Rs. 17 per kg. In the marketing chain of tobacco rope in district Faisalabad, retailer was getting 12.57 percent of the total margin of the marketing chain. The net profit as percentage of sale price was 10.17 percent. In gross margin of retailer, marketing cost contributed 19.05 percent whereas rest of the 80.95 percent was the profits of retailer. Total costs include transportation and labour cost (loading and unloading) etc.

Average purchase price (Rs. / Kg)	= 146
Average sale price (Rs. / Kg)	= 167
Gross marketing margin (Rs. / Kg)	= 21
Percent marketing margin	= 21/167*100 = 12.57 percent
Average total costs (Rs. / Kg)	= 4
Net Profit (Rs. / Kg)	= 21-4= 17
Net Profit as percentage of margin	= 17/21*100= 80.95 percent
Net Profit as a percentage of sale price	= 17/167*100 = 10.17 percent

Table 3. Marketing Margins of the Retailer for Tobacco Ropes (Rs. / Kg)

<i>Item</i>	<i>Avg. Sale Price</i>	<i>Avg. Purchase Price</i>	<i>Gross Margin</i>	<i>Total Cost</i>	<i>Net Profit Margin</i>	<i>Net Profit as % of Sale Price</i>
Tobacco	167	146	21	4	17	
Percent			12.57	19.05	80.95	10.17

Marketing Margins of Retailer for Tobacco Choorra (Rs. / kg)

The retailer was purchasing tobacco choora on an average Rs. 95.75 per kg and was selling to another stakeholder on an average Rs. 121.75 per kg. The gross marketing margin of retailer was Rs. 26 per kg out of this marketing cost was Rs. 3 per kg. So the net margin was Rs. 23 per kg. In the marketing chain of tobacco choora in district Faisalabad, retailer was getting 21.35 percent of the total margin of the marketing chain. The net profit as percentage of sale price was 18.89 percent. In gross margin of retailer, marketing cost contributed 11.54 percent whereas rest of the 88.46 percent was the profits of retailer (Hussainet. al). Total costs include transportation and labour cost (loading and unloading) etc.

Average purchase price (Rs. / Kg)	= 95.75
Average sale price (Rs. / Kg)	= 121.75
Gross marketing margin (Rs. / Kg)	= 26
Percent marketing margin	= 26/121.75*100 = 21.35 percent

Average total costs (Rs. / Kg)	= 3
Net Profit (Rs. / Kg)	= 26-3= 23
Net Profit as percentage of margin	= 23/26*100= 88.46 percent
Net Profit as a percentage of sale price	= 23/121.75*100 = 18.89 percent

Table 4. Marketing Margins of the Retailer for Tobacco Choorra (Rs. / Kg)

Item	Avg. Sale Price	Avg. Purchase Price	Gross Margin	Total Cost	Net Profit Margin	Net Profit as % of Sale Price
Tobacco	121.75	95.75	26	3	23	
Percent			21.35	11.54	88.46	18.89

CONCLUSION

The share of market intermediaries in the consumer's rupee was substantial and there was a need to reduce market intermediaries to minimize the marketing margins and thereby enhanced the producer's income. As in case of choora tobacco, if consumer directs purchase tobacco from the grower the price is reduced to 95 rupees per kilogram. Similar case with tobacco ropes so in the absence of middlemen the price of tobacco reduces. Same conclusion was drawn and recommendation made by some other studies for the improvement of tobacco marketing (Rao and Chaudary, 1988).

As far as Faisalabad wholesale tobacco market is concerned, there is very congested place for the market. Due to congested environment, sanitary conditions are poor, unhygienic conditions are prevailing and it creates problems during loading and unloading. There are many problems on marketing side of tobacco like wide price fluctuations, relatively high transportation costs and lack of knowledge on actual market conditions. Government should provide proper place for the wholesale tobacco market in district Faisalabad for making market operations smooth and fix up to a reasonable level for facilitating the marketing functions.

REFERENCES

- [1] Abbott, J. C. & Makeham, J. P. (1990). *Agricultural Economics and Marketing in the Tropics* (2nd edition). *Intermediate Tropical Agricultural Series*. London: Longman, Group Ltd.
- [2] Adinya, I. B. (2006). *Analysis of Costs>Returns Profitability in Groundnut Marketing in Bekwarra Local Government Area Cross River State, Nigeria*. Department of Agricultural Economics and Extension, Cross River University of Technology Obubra Campus, Nigeria. *The Journal of Animal & Plant Sciences* 19(4), 212-216.
- [3] Aslam, M., Ghafoor, A., Hashmi, A. H., Raza, M. A. & Rasool, S. (2013). Marketing Margins Analysis of Seed Cotton in District Khanewal, Pakistan. *Pakistan Journal of Science*, 65(2), 224-227.
- [4] Bashir, M., Iqbal, J. & Khair, S. M. (2001). Marketing Margins for Tor Kulu Apple Produced in Pishin – A Case Study. *Pakistan J. Agri. Econ.*, 4(2). Agricultural Prices Commission, Islamabad.
- [5] Cholan, T. Z. (2007). Marketing Margins of Broiler in Azad Jammu Kashmir: Challenges and Opportunities. *Sarhad J. Agric.* 23(1).
- [6] Government of Pakistan (GOP). (2009). *Agricultural Statistics of Pakistan (2008-09)*.

- Ministry of Food and Agriculture, Economic Division, Islamabad, Pakistan.
- [7] Government of Pakistan (GOP). (2010). *Economic Survey of Pakistan (2009-10)*. Economic Advisor's Wing, Finance Division, Islamabad.
- [8] Hussain, S. A., Badar, H. & Khokhar, S. B. (2003). Market Intermediaries and Their Marketing Margins for Inland Fish – A Case Study of Lahore District. *International Journal of Agriculture & Biology*, 5(1), 67-73.
- [9] Iqbal, W. (2011). *Illicit Tobacco Trade Causing Annual Loss of Rs. 7.4 billion: A Case Study*. Copyright Business Recorder, 2011 Karachi Head Office Recorder House, 531. Business Recorder Road, Karachi-74550 Pakistan phone: 225-0311, 225-0071/5 (five lines) Fax: 222-8644
- [10] Ishaq, M., Farooq, A. & Hassan, A. (2006). Market Margins Analysis of Citrus Produce in Malakand District of NWFP. *Sarhad J. Agric.*, 22(3), 45-51.
- [11] Khushk, A. M. & Smith, L. E. D. (1996). A Preliminary Analysis of the Marketing of Mango in Sindh Province, Pakistan. *The Pakistan Development Review*, 35(3), 241-255.
- [12] Khushk, A. M., Memon, A. & Aujla, K. M. (2009). Marketing Channels and Margins of Dates in Sindh, Pakistan. *J. Agric. Res.*, 47(3), 293-299.
- [13] Kohl, R.L. & Uhl, J. N. (1972). *Marketing of Agricultural Products* (5th Ed.). New York: Macmillan Publishing Co., Inc.
- [14] Nadeem, M. A. (1984). *A Study of Marketing of Fresh-Water Fish: The Testimony from Faisalabad Markets*. MSc (Hons) Thesis, Department of Agriculture Marketing UAF.
- [15] Pakistan Tobacco Board (PTB). (2009). *Economic Significance of Tobacco*. 46-B Office Enclave, Phase-V Hayatabad, Peshawar, NWFP Pakistan.
- [16] Partadiredja, A. (1971). The Marketing Margin for Rice, *Bulletin of Indonesian Economic Studies*, 7(2) 89 -94.
- [17] Rao, D. V. S. & Chaudhry, K. R. (1988). A Study of Marketing Costs, Margins and Factors Affecting Prices of Inland Fish in Selected Markets. *Indian Journal of Agricultural Marketing*, 20(2), 170-175.
- [18] Shaikh, R. B., Memon, A. G., Phulpoto, L. A. & Mailto, G. M. (1995). *An Analysis of Production, Prices, Exports and Packaging of Fish Industry in Pakistan*. Economic Review.
- [19] Shepherd, W. A. (1996). *A Guide to Marketing Costs and How to Calculate Them*. Marketing and Rural Finance Service, Agricultural Services Division. FAO. Rome.
- [20] Talley, M. B. (2010). *Examining the Impact of Development, Tobacco Taxation, and Tobacco Prices on Global Adult Male Smoking Prevalence*. Public Health Theses. Paper 140. http://digitalarchive.gsu.edu/iph_theses/140.
- [21] Townsend, J. (1996). Price and Consumption of Tobacco. *British Medical Bulletin*, 52(1), 132-142.
- [22] Zeb, J. & Khan, Z. (2008). Peach Marketing in NWFP. Restructuring of Horticultural Research and Development Project in NWFP. *J. Agric.*, 4(2).