
**RESPONSIVENESS OF EXPORT QUANTITY DEMANDED FOR TECH-VALUE
ADDED TEA BAGS: A STUDY BASED ON INTERNATIONALIZED TEA TSMEs'
OF GALLE AND MATARA DISTRICTS IN SRI LANKA**

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ABSTRACT

The tech-value added tea exportation is under present circumstances become a relatively confused and complicated operation in Sri Lanka's context especially for tea TSMEs which operate in international market context. This process has been keeping on to be more complex since 2010. This research study was attempted to identify the major factors affecting the demand for technologically value added tea bag exports. With the usage of primary data through a structured questionnaire from a sample of 32 internationalized tea TSMEs plus, with the help of secondary data, a comprehensive qualitative analysis and a quantitative analysis (Regression Analysis) have performed. The analysis revealed that the volume demanded by the foreign countries from the tech-value added tea bags is significantly determined by the price of tech-value added tea bags itself, the degree of tech-value addition of the tea bags and the exchange rate with the respective coefficient estimations of -20.61, 23.01 and -21.5. It was suggested that more technologically value added teabags from internationalized tea TSMEs in Sri Lanka is having a higher demand in export markets thus assures more export income.

Keywords: *Internationalized TSMEs, Tea Export, Technological Value Addition*

1 INTRODUCTION

As far as the Plantation sector in Sri Lanka is concerned, the tea plantation carries the most dominant place in Sri Lanka's economy. The tea plantation has been providing its fullest contribution since its introduction to Sri Lanka by the English. It is the plantation which showcases the largest export earning generation (Anon, 2012) hence the tea exports account for about 19% of the total exports. Moreover, almost 55% contributes for the total agriculture exports in the country in 2017. The tea sector is expected to achieve an export target of US \$ 7,500 million in 2020 (Sri Lanka Export Development Board,

2019) with the help of new tech-value added Tea Bags varieties such as nutritionized tea, Brick Tea (consisting of leaf, stalk, twig and dust siftings), Scented Tea, Organic Tea, Iced Tea, Green Tea, Black Tea, Flavored Tea, Colored Tea, Instant Tea, Ready to drink Tea.

2 LITERATURE REVIEW

Due to the commitments with global and regional trade agreements in 1990s, a new policy was introduced on tea trading. It was denoted as the 'Tea Re-Export Policy' which enables local tea traders to import tea from other countries thus export those with or without blending under private labels (Farkas and Anon, 2001). Since the inception of this policy, the quantity of tea imports and exports fluctuated over the years. This policy was governed by the Sri Lanka Tea Board (SLTB). As far as the tea imports are concerned, there are mainly two types. Those are CTC tea and Orthodox tea. For CTC tea, it is compulsory to blend with Sri Lanka's tea, but for specialty types which are not produced in Sri Lanka such as Dargiling, Oolong and Chinese Jasmine mere value addition was permitted. Some of the forms are tea packets, tea bags, instant tea and green tea. As far as the tea exporting TSMEs in other countries are concerned, those countries practice lots of modern technology based product and process innovation for their respective tea exports. The tech-innovative entities are able to surpass its rivals and maintain a competitive advantage for many years are having a sustainable competitive advantage in accordance with Bending et al (2018). Having a tendency towards being more competitive to take the competitive advantage through tech-value addition by the Sri Lanka's internationalized TSMEs in tea sector will be the ultimate way to be survived in this fierce competitive era.

In Sri Lanka, there is a continuous monitoring process on the exported tea. This monitoring involves, quality checking and physical quantity checking of exported tea. Every consignment of export tea is checked for its quality by a specialized testing panel from SLTB, Sri Lanka Tea Traders Association and Sri Lanka Tea Brokers Association. In addition, they randomly check re-export consignments. In the physical checking, SLTB maintains a stock record of exported tea from every exporter. A group of inspectors employed for sudden physical checking of stocks at local storages. The re-exporting tea is not permitted to use the 'Pure Ceylon Tea' tag on the label. Only, it can use 'Blended with Sri Lanka's Tea' or 'Packed in Sri Lanka'. Every packet of re-export has to be registered in the SLTB and a separate certificate is issued for every consignment (Srikanthi, 2003). When it comes to the exports, the Tea bags are vitally important because of its high unit price and its increased number of export destinations. This research study concerns only the 'Tea Bags' exportation of Sri Lanka where dearth of research findings can be seen in

South Asian region and in Sri Lanka's context on the tech-value addition aspect of tea bags by the internationalized TSMEs in tea category.

3 MAIN OBJECTIVE

The main objective of this research study is to identify the factors affecting the quantity demanded for technologically value added tea bag exports in Sri Lanka's internationalized tea TSMEs.

4 METHODOLOGY

The demand for a commodity depends on many factors such as its own price, price of related goods, consumer income, the taste and preferences of the consumer (Samarajeewa and Fernando, 2002). Based on these factors and considering other related factors, an econometric model for the demand of tea imports can be constructed as follows.

Annual data for all the variables specified in the model were collected from SLTB. Price value was deflated by CCPI number to remove the inflation effect. Then, the specified model was estimated using statistical software for the period from 1976 to 2018 where 1976 is the year in which the tea bag exports were started.

$$Q_t = f(P_{tva}, E_{tva}, T_{tva}, E_{tt}, Ex, Tax) \quad (1)$$

Where,

Q_t = Demand quantity of tech-value added tea bag exports in million Kg

P_{tva} = Export price (FOB) of tech-value added tea bags in Rs. per Kg

E_{tva} = Total Tech-Value Added Exports in million Kg

T_{tva} = Total Tech-Value Addition for Tea bags

E_{tt} = Total Tea Exports in million Kg

Ex = Exchange rate in rupees

Tax = Tax on tea bag exports (Dummy variable)

5 RESULTS AND DISCUSSION

5.1 Demand Analysis for Tech-Value Added Tea Bag Exports

The OLS method showed a good statistical insight with the results consistent with the econometric model. Table 1 represents the results obtained in the estimation.

Table 1: Estimations of Tech- Value Added Tea Bags Export demand model

Variable	Estimated Coefficient	t-value	P- value
Constant	-59.37	-2.85	0.1280
Export Price of Tech-Value Added Tea Bags(Ptva)	-20.61*	2.61	0.0206
Total Tech-Value Added Exports(Etva)	15.15	0.28	0.7839
Total Tech-Value Addition for Tea bags (Ttva)	23.01	0.29	0.7646
Total Tea Exports (Ett)	16.025	2.10	0.1540
Exchange Rate(Ex)	-21.57*	8.21	<0.0001
Taxes	-392.35	-3.92	0.5872

R-Squared = 0.9779, Adjusted R-Squared = 0.9731, *Significant at 5%, **Significant at 10%

The derived regression equation is as follows.

$$Q_t = -59.37 - 20.61 Ptva + 15.15 Etva + 23.01 Ttva + 16.025 Ett - 21.57 Ex - 392.35 Tax \quad (1)$$

The estimated model with the specified variables explained 97% of the variability of the export demand for tea bags. Based on the estimated results, the export demand for tea bags was significantly depends on the price (FOB) of tech-value added tea bags, total tech-value addition of tea bags and the exchange rate. This -20.61 indicates that, 1% decrease in the price of tech-value added tea bags will lead to almost 21% increase in the quantity demanded which is a notable amount. More importantly, the degree of Total Tech-Value Addition for Tea bags possessing is the second highest coefficient value where 1% increases in the degree of Total Tech-Value Addition for Tea bags will lead to have almost 23% growth in export demand. The exchange rate responsiveness indicated -21.57 implying that for a 1% decrease in the exchange rate, the export demand for tech-value added tea bags will increase by almost 22%.

6 CONCLUSION

This research study was attempted to identify the factors affecting the demand for technologically value added tea bag exports of internationalized tea TSMEs in Galle and Matara Districts in Sri Lanka. With the usage of primary data from a structured questionnaire to a sample of 32 and secondary data, a comprehensive qualitative analysis and a quantitative analysis (Regression Analysis) performed hence revealed that the price (FOB) of tech-value added tea bags, total tech-value addition of tea bags and the exchange rate for the export demand for tea bags. The most vital finding was 1% increase in the degree of Total Tech-Value Addition for Tea bags will lead to have almost 23% growth in export demand.

7 POLICY IMPLICATIONS

Since the Sri Lanka's tech-value added tea exports is having a very high demand in international market, it is very important for Sri Lanka's internationalized tea TSMEs in Galle and Matara Districts in Sri Lanka to keep on up grading their stance and attention on tech-value addition aspect rather concerning on mere value addition aspect.

ABBREVIATIONS

TSMEs	Technology based Small and Medium Enterprises
FOB	Free On Board
SLTB	Sri Lanka Tea Board

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