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An Economic Analysis of 'Buy Local' Trend

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An Economic Analysis of 'Buy Local' Trend

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Introduction:

- The consumer preferences are continuously changing
- The market witnessed different trends in food market (e.g. organic, non-GMO etc.)
- The 2008 Farm Act considers 'local' products those grown within 400 miles or at the same state of the point of consumption (Martinez, 2010)

Motivation:

- Consumer prefer 'local' for freshness, better quality, but most importantly, *to help local community* (Winter, 2003; Schneider & Francis, 2005; Durham & Roheim, 2009)
- Winfree and Watson (2017) showed unless there is market power or strong positive externalities from locally-grown product, the trend may be welfare reducing
- Does this trend make local producers better off?
- Also, 'local' is a niche market, which may fail to attract large producers/firms

Objectives:

The study examines the market and welfare impacts of the 'buy local' trend. Specifically, the study will analyze the effects of the trend on:

i. the prices and quantities/market shares of the relevant, local and non-local products

ii. the welfare of consumers of local and non-local products

iii. the welfare of agricultural producers and the profits of the middlemen involved

Theoretical Framework:

- The study develops a model of vertically- (or quality-) differentiated products
- The model explicitly accounts for

➢ heterogeneity among consumers:
difference in consumer preferences for quality (captured by λ, where $\lambda \in [0,1]$)

➢ Imperfect competition among the middlemen involved

➢ Differences among the producer efficiency (captured by $C \in [0,1]$)

➢ **Before 'buy local' trend:**

$$U_C = U - p_C + \alpha\lambda$$
$$U_O = U - p_O + \beta\lambda$$
$$U_A = U$$

➢ **After 'buy local' trend:**

$$U_{CL} = U - p_{CL} + (\alpha + \delta)\lambda$$
$$U_{OL} = U - p_{OL} + (\beta + \delta)\lambda$$
$$U_A = U$$

➢ **After 'buy local' trend:**

$$U_{CN} = U - p_{CN} + \alpha\lambda$$
$$U_{CL} = U - p_{CL} + (\alpha + \delta)\lambda$$
$$U_{ON} = U - p_{ON} + \beta\lambda$$
$$U_{OL} = U - p_{OL} + (\beta + \delta)\lambda$$
$$U_A = U$$

Net return function of producers:

$$NR_C = p_C - w_C - aC$$
$$NR_O = p_O - w_O - bC$$
$$NR_A = 0$$

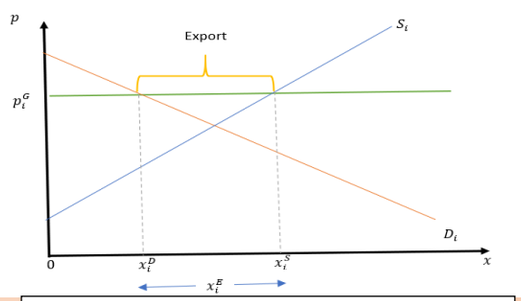

Figure 1: Demand and supply functions for conventional and organic products when the state is an exporter

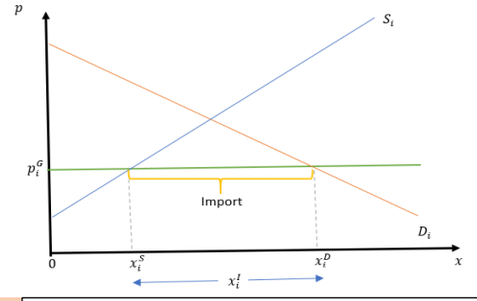

Figure 2: Demand and supply functions for conventional and organic products when the state is an importer

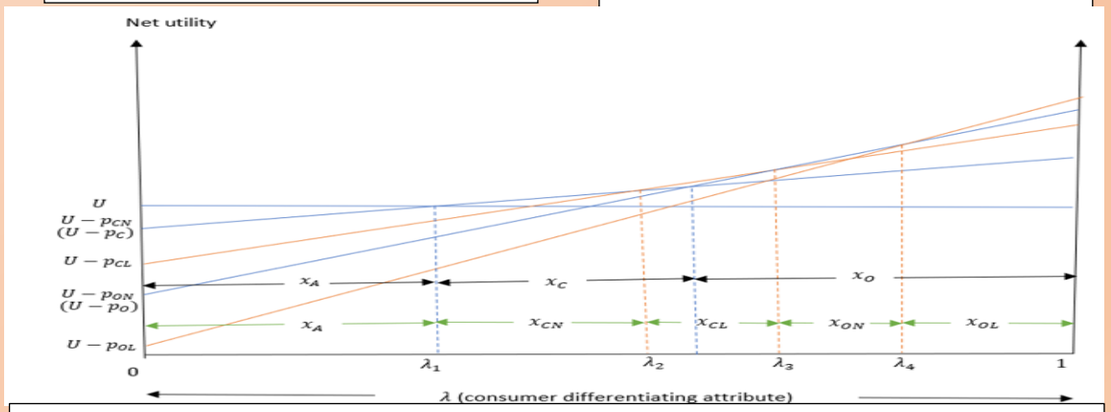

Figure 3: Consumers' net utility functions for conventional, organic products and alternative, before and after 'buy local' trend, for importing state

Conclusion:

- The market and welfare impacts of the 'Buy Local' trend depend on the size of the locality and whether it is an exporter or an importer of the good in question
- The 'Buy Local' trend has no impact on local producers when the locality is a small exporter of the product in question
- When the locality is an importer of the goods in question, the trend increases the welfare of existing producers of conventional and organic products, but can leave the welfare of new producers unaffected
- Existence of externalities can reduce consumer valuation and social desirability of the 'Buy Local' trend