



An analysis of the impact of the ‘Ask, Listen, Learn: Kids and Alcohol Don’t Mix’ project in St. Lucia



By: Department of Education, Gender Relation & Innovation & The Foundation for Advancing Alcohol Responsibility

Abstract

Underage drinking can have a significant effect on the individual and society. The ‘Ask, Listen, Learn: Kids and Alcohol Don’t Mix’ project, an initiative of the American-based organization, the Foundation for Advancing Alcohol Responsibility, is an attempt to educate and sensitize children and parents of the effects of alcohol consumption by minors. Through a partnership with the Department of Education, Gender Relation and Innovation, this project has been implemented in a number of Saint Lucia’s primary schools over the past three years. Annual reviews are conducted on the project’s impact. This report investigates the program’s impact on the cognitive and affective behaviour of the students engaged in the 2017-2018 phase. The analysis is based on surveys conducted in the pre-to post-program phases with 1,862 students of Grade Two to Six from twelve primary schools. The major findings of the study illustrate that the program has contributed to an increase in the discussion of underage drinking in schools and homes as well as participants’ knowledge of underage drinking

Background

Over the past four years, the Foundation for Advancing Alcohol Responsibility has partnered with the Department of Education, Gender Relations and Innovation to introduce Ask, Listen, Learn. One of the most widely-distributed program targeted at promoting healthy lifestyles and reducing underage drinking among minors. Ask, Listen, Learn has been ran at a number of primary schools around the island and at the end of each academic year, a review is done on the programme. This study seeks to highlight the findings for the 2017/2018 academic year.

Objectives

- 1) To examine students’ awareness of the negative impact of underage drinking.
- 2) To evaluate the impact of the programme in informing students’ decision making skills as it relates to underage drinking.
- 3) To assess the sustainable effect of the programme on informing students’ healthy lifestyle practices.

Hypothesis

Ask, Listen, Learn will:

- increase conversations between kids and adults on the effects of alcohol consumption on one’s health.
- Assist students in gaining critical knowledge on how alcohol affects the developing brain
- empower kids to make smart decisions in the future.

Methods

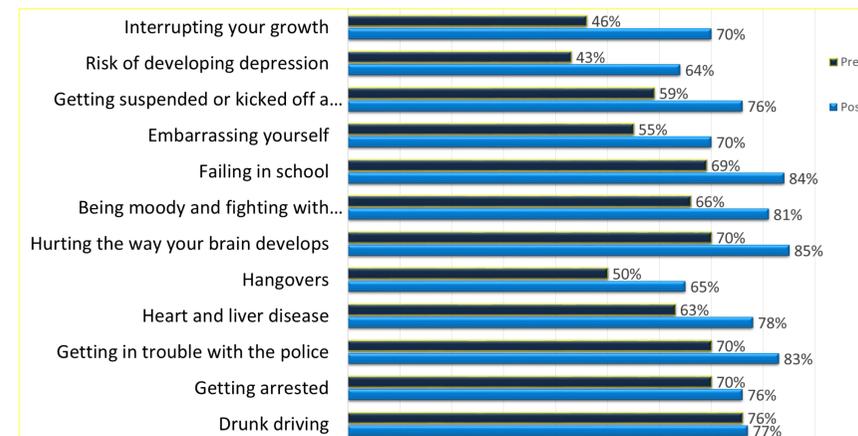
- Pre/post evaluation designs through the use of a survey
- Data collected during the 2017/ 2018 academic year
- Sample comprised 1,862 students from Grade Two to Six at twelve primary school
- A self-administered 12-item questionnaire

Data Analysis

- Data were analyzed using descriptive statistics

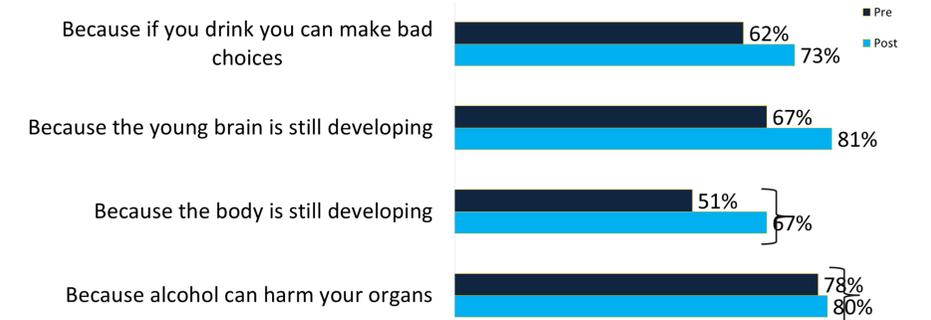
Results

Students continued to demonstrate broad knowledge of the dangers of underage drinking; awareness of all dangers increased after program engagement.



Results

Reasons for Saying “NO” to Alcohol and Living a Healthy Lifestyle



Conclusion

Given the positive results from the programme, it might be worth:

- examining its inclusion in the ECD policy and HFLE curriculum;
- implementing a national monitoring system(s) to track alcohol consumption among minors and to plan interventions to alleviate the problem
- enforcing the regulations on alcohol sales to minors (such as presentation of IDs for anyone who looks below the required age of 16).

References

1. Foundation for Advancing Alcohol Responsibility . (n.d.). Ask, Listen, Learn. In *Foundation for Advancing Alcohol Responsibility*. Retrieved October 11, 2018, from <https://www.responsibility.org/start-a-conversation/responsibility-kids/ask-listen-learn/>
2. Foundation for Advancing Alcohol Responsibility, . (n.d.). *Why It’s Important to Talk to Your Students About Underage Drinking*. Retrieved October 11, 2018, from <https://asklistenlearn.org/teachers/why-its-important/>
3. *Liquor Licence Act 2006* (S.I) Cap.13.17 (SLU.).
4. World Health Organization (2014). *Global status report on alcohol and health, 2014*. Luxembourg: World Health Organization.



The Shared Economy: A Study on Airbnb in St. Lucia

Marvin Lionel Hutchinson & Rosemary Pierre-Louis

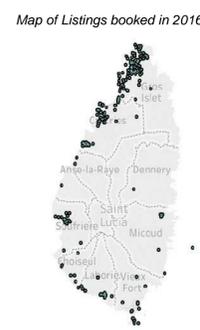
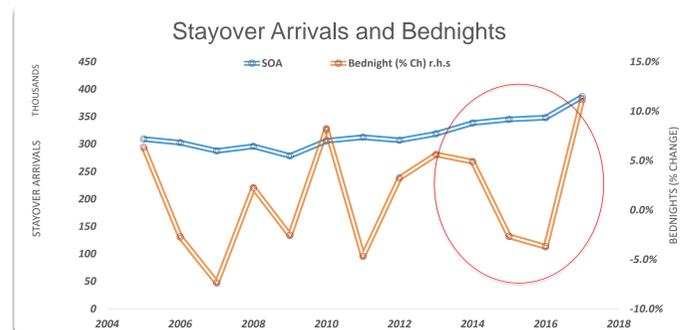


Abstract

One of the most visible and fastest growing form on the sharing economy taking root in Saint Lucia is that of home/room rentals. Over the past few years, Saint Lucia has seen an upsurge in participants in the Sharing Economy or “Alternative Accommodation Sector”, with rooms being offered to visitors at competitive rates. This trend has caught the attention of policy makers and hoteliers alike, with Airbnb now becoming a household name with estimates of over 600 individuals and small businesses in Saint Lucia participating. The study aimed to understand the economic potential of this emerging market to the tourism sector. The findings showed that the alternative accommodation sector may appear to impose a plethora of social and economic trepidations that might afflict negatively the formal hotel models. However, a closer examination of the model saw an innovative avenue that creates new opportunities for everyone in the tourism sector, only if the model is embraced strategically.

Background

- The Sharing economy- A multifaceted industry that empowers people to generate additional income from their idle assets (home, car, boat, bike, tools, expertise, etc.)
- From 2014, an upsurge in persons staying in private accommodations, despite stayover arrivals increasing, resulted in the decline in bednights.
- The Caribbean Tourism Organisation (CTO) noted that in 2015, Airbnb recorded tremendous success in St. Lucia with over 900 nights per month booked, making it the most recent ground-breaking and innovating platform.
- The Caribbean Hotel and Tourism Association (CHTA) reported that Airbnb is forecasting a 17.0 percent year-to-year growth in visitors to Saint Lucia using its services.
- Airbnb’s Shawn Sullivan (*Public Policy Director for Central America and the Caribbean*) noted that as the end of 2016, there was an estimated 400 active hosts operating in Saint Lucia .



Objectives

- Whether the upsurge in persons staying in private accommodation was a result of the ground-breaking and innovative platform Airbnb.
- Whether the sharing economy is perceived as a threat or innovative opportunity by proponents of the tourism sector.

Methods

Conducted unstructured interviews with
The Department of Tourism
The president of the St. Lucia Hotel Association
Hoteliers
Airbnb Hosts

Collected data on the listings from the Airbnb website

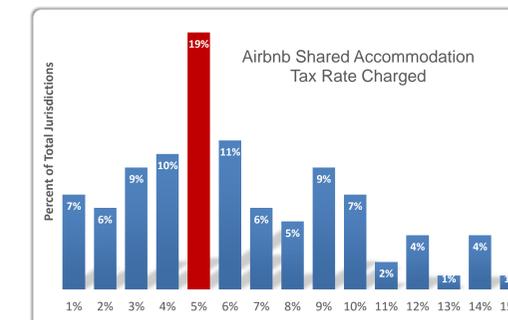
Data Analysis

- *Property Type
- * Location
- *Year listed
- *Price per Night (\$US)
- * No. of Rooms
- * No of Beds
- * Hotel Accommodation Tax of 8%-10%
- *Occupancy Rate of 56%

Results



	Listings	No. of Rooms	No. of Beds	Avg. Daily Rates (USD)
Apartment	18	18	19	75
Bed & Breakfast	4	4	5	80
Cabin	1	2	3	115
Entire Home/Apt	412	1,032	1,286	153
House	5	7	7	65
Private Room	107	138	184	85
Villa	10	10	7	185
Grand Total	557	1,211	1,511	



Hotel Occupancy Charge (HOC) Rate	Estimated Revenue Foregone (\$USD)
8.0 percent	2.5 million
10.0 percent	3.6 million

Conclusion

- Airbnb accounts for 7,000 guests to St. Lucia, whose length of stay averaged 5.4 nights.
- Each host earned an average of US\$3,400 per year, which cumulatively equates to US\$1.36 million in revenue each year.
- 21% of Saint Lucia’s Airbnb room stock are located outside the hotel based areas with at least one Airbnb accommodation offer in every settlement in Saint Lucia.
- Some traditional hotels list their rooms on Airbnb and have found new business avenues by collaborating with the Airbnb hosts to provide restaurant and entertainment services to Airbnb guest.
- The Sharing accommodation sector provides a significant source of revenue for the government. However, taxing the Airbnbs now would significantly limit its potential to grow into a viable sector that generates revenue and creates employment.
- Airbnb hosts and the Department of Tourism should collaborate to develop a register of all listing on the island. This may ensure better monitoring and regulating practices, as well as the opportunity to apply safety standards and establish an agreed level of standard to protect the integrity of the tourism product.
- Repeat Airbnb customers typically reserve their rooms with the host directly instead of going through Airbnb, which benefits both parties by avoiding the taxes and fees charged by Airbnb.

References

- Caribbean Tourism Organisation (CTO), 2017. CTO Signs MOU With Airbnb. Retrieved from <https://www.onecaribbean.org/cto-signs-mou-airbnb/>
- Caribbean Hotel and Tourism Organisation (CHAT), 2016. The Sharing Economy and Caribbean Tourism. Retrieved from <https://www.caribjournal.com/2016/09/26/the-sharing-economy-and-caribbean-tourism/>

INTERNATIONAL TRADE THEORY

A CASE FOR AGRICULTURE AND TOURISM USING THE REVEALED COMPARATIVE ADVANTAGE INDEX

Prepared by Nalisa A. Marieatte

Abstract

Agriculture and tourism have been the lead foreign exchange earning sectors in Saint Lucia since independence in 1979. Modern theory of international trade predicts trade based on comparative advantage. Since Balassa (1965), revealed comparative advantage (RCA) indices have been used as measures of comparative advantage. This paper used the RCA method to determine whether government investment in the lead sectors in Saint Lucia are justifiable based on whether, or not these sectors enjoy a comparative advantage. The paper calculates the RCA for tourism, and the most economically significant agricultural exports, banana and cocoa, over two decades. The results suggest that the country has a relative stable comparative advantage in tourism, a declining comparative advantage in banana production and no comparative advantage in cocoa production. Based on the results, government continued support for the tourism and agricultural sectors in some form seems justifiable. However, the paper does not address the extent of government support that is suitable.

Background

- International trade has been identified as a significant factor for economic growth and development of developing nations
- Although, new trade theories have emerged, the main theoretical explanation as to why countries trade and the prediction of trade flows is comparative advantage.
- The theory of comparative advantage, states, a nation should “specialize in the production and export of the commodity in which its absolute disadvantage is smaller and import the commodity in which its absolute disadvantage is greater” (Salvatore, 2012). In other words, trade specialisation in industries which had lower comparative production costs. Comparative advantage was first introduced by David Ricardo (1817) to counteract Adam Smith's theory of absolute advantage. Ricardo's theory however, was invalidated on the basis that it was based on the labour theory of value which was considered over simplified and false in its assumptions.
- Harberler (1936) reformulated comparative costs in terms of opportunity cost as a measure of comparative advantage
- Around the 1930s as well, economists Eli Heckscher and Bertil Ohlin developed a model that asserted international trade based on differences in factor endowments of nations. The Heckscher- Ohlin (H-O) theory specified factor endowments as the source of nation's comparative advantage. It predicted specialization in the production and export of products that used intensively a nation's abundant and cheap factors while importing products that required intensive use of a nation's relatively scarce and expensive factor (Heckscher, 1949; Ohlin, 1933).
- Historically, Saint Lucia's main export sectors have been bananas and tourism. Few investigations have been done into these sectors' comparative advantage

Objectives

The objective of the paper was to determine whether Saint Lucia's tourism sector and the agricultural commodities bananas and cocoa, enjoyed a comparative advantage in the global economy.

Methodology

Following Seyoum (2007) and Freckleton (2013), this study used two of the commonly used RCA indices to establish whether comparative advantages existed in tourism and select agricultural commodities in Saint Lucia.

The first index is the standard Balassa index which is defined as follows:

$$RCA_1 = (X_{ij} / X_{it}) / (X_{wj} / X_{wt})$$

Where:

X_{ij} = country's exports in commodity j

X_{it} = country's total exports

X_{wj} = world exports in j

X_{wt} = world total exports

The second RCA index measures the comparative advantage of a given service or agricultural commodity with respect to the country's total sectoral exports. This index is defined as:

$$RCA_2 = (X_{ij} / X_{is}) / (X_{wj} / X_{ws})$$

Where:

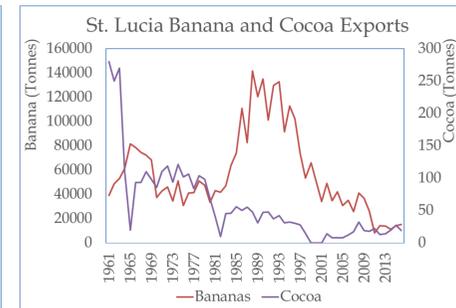
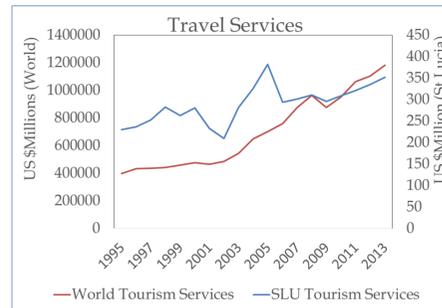
X_{ij} = country i exports of j

X_{is} = country i total exports of services/ good

X_{wj} = world exports of service j /good j

X_{ws} = total world exports of services/goods

Data



- The data for tourism was obtained from the World Trade Organization (WTO) database which is compiled from International Monetary Fund (IMF) Balance of Payments Statistics for the years 1995, 2005, 2015.
- In the case of agriculture, the data for bananas and cocoa were obtained from the website of the Food and Agricultural Organisation (FAO). The years retrieved were 1995, 2005 and 2013.

Results

	1995	2005	2015
1 Share of travel to total exports (S)	0.36	0.41	0.36
2 Share of travel to total exports (W)	0.053	0.044	0.047
3 RCA Index 1	6.86	9.37	7.64
4 Share of travel to total service exports (S)	0.43	0.44	0.44
5 Share of travel to total service exports (W)	0.17	0.13	0.13
6 RCA Index 2	2.62	3.35	3.40

Source: Author's calculations (See appendix for details). (S) indicates calculations for Saint Lucia. (W) indicates calculations for the world

Results (cont'd)

	1995	2005	2013
1 Share of banana to total exports (S)	0.088	0.016	0.0097
2 Share of banana to total exports (W)	0.00060	0.00036	0.00034
3 RCA Index 1	146.12	44.72	28.15
4 Share of banana to total merchandise exports (S)	0.51	0.19	0.056
5 Share of banana to total merchandise exports (W)	0.00088	0.00054	0.00051
6 RCA Index 2	582.61	345.48	108.45

	1995	2005	2013
1 Share of cocoa to total exports (S)	0.00018	0.000063	0.000044
2 Share of cocoa to total exports (W)	0.00033	0.00029	0.00024
3 RCA Index 1	0.55	0.022	0.18
4 Share of cocoa to total merchandise exports (S)	0.0011	0.000073	0.00025
5 Share of cocoa to total merchandise exports (W)	0.00048	0.00043	0.00036
6 RCA Index 2	2.21	0.17	0.69

Conclusion

The results indicate that Saint Lucia's lead sectors at some point enjoyed a comparative advantage.

- Tourism seemed to have maintained that advantage over the time period investigated despite the figures indicating that perhaps the sector has not improved in its absolute competitiveness
- Bananas seem to be experiencing a declining comparative advantage. The sector seemed to have enjoyed a significant comparative advantage in the mid 1990's
- Cocoa did not enjoy a comparative advantage
- The results also demonstrate that comparative advantage is not static or fixed but is rather dynamic and changing
- It also suggests that either government intervention has helped create a comparative advantage or that the sector has a comparative advantage naturally (probably not coincidental that the comparative advantage exists in the sectors which have enjoyed the most government investment and assistance over the years, that is, tourism and bananas)

Policy Recommendations

The results lend support for an interventionist approach towards the lead sectors.

Tourism

- ✓ Tourism seemed to have maintained that advantage over the time despite the figures indicating that perhaps the sector has not improved in its absolute competitiveness. Reliable natural factor endowments such as climate, beaches and exotic environmental features may be the main reason for this persistent advantage to date. If this is the case, then any credible policy discussion on enhancing the tourism product must include serious discourse and policy towards conserving the natural environment.
- ✓ Beyond the allure of natural endowments, how can we improve competitiveness. Necessary to explore:
 - Transportation factors in relation to other lead competing destinations
 - Diversification of products: Identify potential niche tourism products and services in areas such as health, sports, education
 - Exploration of non-traditional markets: Potential new source markets from emerging economies, for example, the BRICS (Brazil, Russia, India, China, South Africa) that could provide possible sources of middle to high income individuals seeking to spend wealth on new and exotic experiences

Agriculture

- ✓ Encourage production up the value chain
- ✓ Incentives to manufacturers utilising local agricultural produce
- ✓ Incentives for research in agriculture; try to use the CIP to attract investment in agricultural research in the tropics
 - Provide incentives for research in new technologies
 - Encourage research for processes for storage and preservation
 - Processes to reduce costs of production
 - Research on ethno- botanicals with a view to documenting traditional knowledge of their use and benefits (IP)

Foreign Direct Investments, Exports and Economic Growth in SIDS: Evidence from Saint Lucia

by: Kimbert Evans, Dr. Roger Hosein and Dr. Regan Deonanan

Abstract

The paper examines the causal relationships among Foreign Direct Investments, exports, and GDP in SIDS using data for Saint Lucia over the period 1980-2015. Using the ARDL bounds test approach to assess cointegration, results indicate that the variables share a long-run relationship when GDP and FDI are the dependent variables. Employing the Toda-Yamamoto test to assess long-run causal linkages, results indicate bi-directional causality between GDP and FDI, unidirectional causality from exports to GDP, and, unidirectional causality from FDI to exports. Accordingly, this paper finds evidence of export led-growth and FDI-led growth in Saint Lucia. These findings suggest that Saint Lucia should continue policies aimed at attracting FDI and expanding the export sector to promote economic growth. Additionally, policies which can diversify the types of FDI that Saint Lucia is currently attracting may be important in promoting exports and spurring higher levels of export led-growth and FDI-led growth. This study has implications for Eastern Caribbean countries and SIDS in other regions.

Background

- There is a vast literature assessing the relationship between Foreign Direct Investments, exports and Economic growth for developed economies;
- Few authors have assessed the relationship for developing economies (Read, 2008; Feeny et al., 2014);
- Proponents argue that there exist a positive relationship between Foreign Direct Investments, Exports and Economic Growth (Mitra and Khan, 2014; Keho, 2015; Popovici and Calin, 2016);
- Others argue that there is no causal relationship between Foreign Direct Investments, Exports and Economic Growth (Rodrik, 1995; Kang 1997 and Petri et al.);
- Understanding whether and to what extent economic growth in Saint Lucia has been driven by exports and Foreign Direct Investments.

Objectives

- Determine the relationship between FDI inflows and economic growth in Saint Lucia;
- Determine the relationship between Exports and economic growth in Saint Lucia.

Hypothesis

That Foreign Direct Investments and exports have contributed positively to economic growth in the Saint Lucian economy.

Methods

- Step 1**
 - Unit root analysis
 - ADF and PP tests
- Step 2**
 - Cointegration
 - ARDL bounds test
- Step 3**
 - Causality
 - Toda and Yamamoto (T-Y) approach to Granger non-Causality

Data Analysis

- Data is expressed in local currency units using the nominal exchange rate of 2.70
- Each variable converted to real terms using the US CPI, Saint Lucia CPI and the Saint Lucia GDP deflator to deflate exports, FDI and GDP respectively.

Results: Cointegration Test

LHS Variable	Forcing Variable	F - Statistic	95% Critical Bounds		Conclusion
			I(0)	I(1)	
ΔGDP_t	EXP_t FDI_t	12.69	3.54	4.43	Cointegration
ΔEXP_t	GDP_t FDI_t	3.35	3.54	4.43	No cointegration
ΔFDI_t	GDP_t EXP_t	4.84	3.54	4.43	Cointegration

Results (Condt.): Toda-Yamamoto and Long run Estimates

Null Hypothesis	Wald Statistic	P-Value	Coefficients (LHS= ΔGDP_t)	
			Exports	FDI
EXP_t does not Granger cause GDP_t	7.92	0.09*		
FDI_t does not Granger cause GDP_t	11.97	0.02**		
GDP_t does not Granger cause EXP_t	8.72	0.07*		
FDI_t does not Granger cause EXP_t	8.67	0.07*		
GDP_t does not Granger cause FDI_t	11.54	0.02**		
EXP_t does not Granger cause FDI_t	4.50	0.34	0.58	0.21

Conclusion and Policy Implications

- FDI-led growth hypothesis and Export-led growth hypothesis hold for the case of Saint Lucia.
- FDI and exports do not only promote economic growth but economic growth also promote FDI and exports in Saint Lucia.
- Saint Lucia should continue policies aimed at promoting FDI and Exports as a means of boosting economic growth.
- Policies aimed at attracting manufacturing FDI can help develop Saint Lucia's manufacturing sector as well as promote exports for development.

References

- Gasmi, F. and I. Laourari (2017), "Has Algeria Suffered from the Dutch Disease? Evidence from 1960-2013 Data", Toulouse School of Economics Working Paper No. 17-780.
- Pesaran, M.H. and R. Smith (1995), "Estimating Long-run Relationships from Dynamic Heterogeneous Panels", *Journal of Econometrics*, 68(1), 79-113.
- Pesaran, M.H., Y. Shin and R.J. Smith (2001), "Bounds Testing Approaches to the Analysis of Level Relationships", *Journal of Applied Econometrics*, 16(3), 289-326.
- Read, R. (2008), "Foreign Direct Investment in Small Island Developing States", *Journal of International Development*, 20(4), 502-525.

FDI AND ECONOMIC GROWTH IN SAINT LUCIA; GRANGER CAUSALITY AND INVESTMENT MULTIPLIER

By: Thervina Mathurin-Andrew and Janai Leonce
Research and Policy Unit

ABSTRACT

This paper assesses the relationship between foreign direct investment (FDI) flows and economic growth in Saint Lucia while assessing other macroeconomic variables (e.g. openness to trade, the level of education) relative to FDI. Granger causality and VECM approach are used to analyse data for the period 1982 to 2013 to determine the long and short run relationship amongst variables. The findings suggest a bi-directional relationship between FDI and economic growth, when factors as capital stock, school enrolment and debt stock are excluded from the model; otherwise a uni-directional causal relationship exist. It further highlights that FDI granger cause most macroeconomic variables while tourist arrivals, trade openness and economic growth granger causes FDI. The FDI multiplier indicates a positive relationship between economic growth and FDI flows nonetheless with marginal growth impact. Therefore, it is recommended that policy makers improve the economic environment/conditions and use measures aimed at improving tourist arrivals so as to attract tourism related FDI into Saint Lucia so as to improve growth levels.

OBJECTIVE

The paper aims to determine the causal relationship between FDI and economic growth while assessing the FDI multiplier. The causality of the flows is important as it would allow for a better understanding as to the motivating factors for FDI flows and consequently the policy prescriptions government should employ. In addition we aim to assess the significance of various channels through which investment can impact economic activity.

LITERATURE REVIEW

Solow Growth Model (1957)

Keynes (1936)

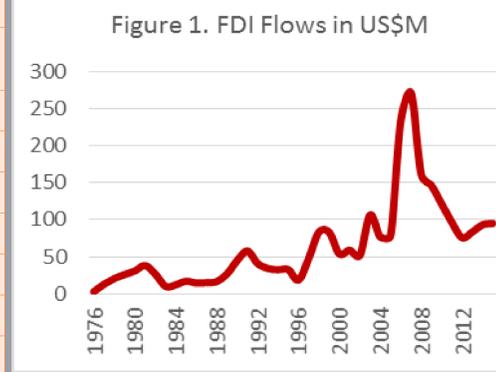
Cristain S., Marius-Corneliu M., Auru-Gabriela S. and Dorn M. (2010)

Griffith, Waithe and Craigwell (2008)

Boopen S., Sawkut R., Shalini R. (2009)

DATA

Variables	Proxy
Broad money	Financial market depth
Capital Stock	Initial endowments
Trade openness	Liberalizations
School enrollment	Human capital
Number employed	Human capital
Debt to GDP	Economic
Stay-over arrival	Economic
CPI	Economic



Data assessment from 1982 to 2015 sourced from the World Bank

METHODOLOGY

Granger Causality—Null Hypothesis; X does not granger cause Y; long and short run causality

Vector Error Correction model (VECM)/ Vector autoregressive model (VAR)

OLS regression - $Y = \alpha + \beta \cdot Y(-n) + \delta \cdot X(-n) + \epsilon$

Where α regression constant, Y GDP growth, X the change in FDI, ϵ residual of the OLS regression, n number of lags assumed for

FINDINGS/RESULTS

Test 01: Exclusion of Stability Variables

GDP, Broad Money and Labour granger cause FDI
FDI does not granger cause any variable

Test 02: Exclusion Human Capital Variables

GDP, Broad Money and Trade Openness granger cause FDI
FDI does not granger cause any variable

Test 03: Exclusion Financial Indicators

GDP, Stayover and Debt Stock granger cause FDI
FDI does granger causes Labour and Debt Stock

Test 04: Exclusion Trade Variables

GDP and Debt Stock granger cause FDI
FDI does not granger cause any variable

Test 05: Exclusion of I2 Variables

GDP, Trade Openness granger cause FDI
FDI granger cause GDP, Stay Over, Debt Stock, Labour, CPI, trade openness

Test 06: Exclusion of Stayover

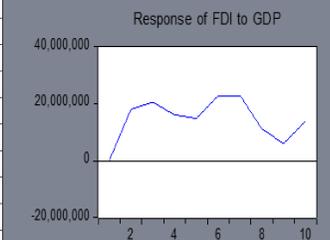
No Causal Relationship

Test 07: Exclusion of Stayover with I2 Variables

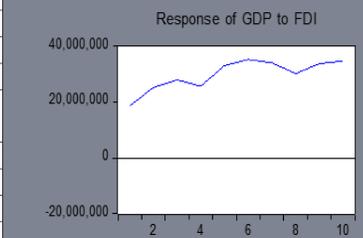
Trade and Broad Money granger cause FDI

FDI granger cause GDP, Broad Money, Labour and Trade

Response to Cholesky One S.D. Innovations



Response to Cholesky One S.D. Innovations



FDI Multiplier of 0.27

INTERPRETATION

- Bi-directional relationship between investment and economic growth with controlled variables
- Factors as stay-over arrivals, capital stock and debt stock are important determinates when assessing the causal relationship between economic growth and FDI

Despite positive relationship the impact of FDI on economic growth is low measured by the FDI multiplier .

REFERENCE

Cristain S., Marius-Corneliu M., Auru-Gabriela S. and Dorn M. (2010), "The estimation of the public investment multiplier in Romania" Available on: <http://www.ipedr.com/vol1/5-Bo00006.pdf> accessed June 28 2017

Boopen S., Sawkut R., Shalini R. (2009), "A Dynamic Empirical Investigation of Foreign Direct Investment and Growth For the Case of Mauritius", Available at: <http://ijse.maldivesresearch.org/journal-articles/a-dynamic-empirical-investigation-of-foreign-direct-investment-and-growth-for-the-case-of-mauritius/>, accessed on January 2017

Solow R.M. (1957), "Technical Change and the Aggregate Production Function" Available at: <http://faculty.georgetown.edu/mh5/class/econ489/Solow-Growth-Accounting.pdf>, accessed on December 2016



Determinants of St Lucian Unemployment

Janai Leonce & Raijeanne Preville



Abstract

A logit based model was used to assess the degree to which the demise of the banana industry, the introduction of Universal Secondary Education (USE) and labour participants' characteristics such as age, gender and educational attainment were significant predictors of unemployment in Saint Lucia.

The results show that age, educational attainment and proxies for labour participants' access to the labour market were negative predictors of unemployment while being female was a positive predictor. Proxies for spill-over effects associated with the transition from agriculture to services were not significant while the introduction of USE was marginally insignificant.

With respect to unemployment the most vulnerable cohort of the labour market were females between the ages of 20 - 25 with minimal access to the labour market and below primary schooling.

Background

- Saint Lucia's unemployment rate has varied from a high of 24.4 percent in 2014 to a low of 14.0 percent in 2007.
- These rates are considerably higher than that of regional peers.
- Saint Lucia, unlike her regional counterparts was 'late' to transition to a service based economy.
- Unlike her OECS counterparts was the most dependent on the export of bananas as a revenue generator.

Objectives

- Determine the extent to which the collapse of the banana industry, the subsequent 'forced' transition towards becoming a services dependent society, gender dynamics and unequal access to basic education explain the probability of being unemployed in Saint Lucia .

Hypothesis

The high dependence and abrupt collapse of the banana industry, which led to the late, and 'forced' transition to the services sector coupled with limited educational attainment and opportunities immediately thereafter explains Saint Lucia's persistently high unemployment.

Methods

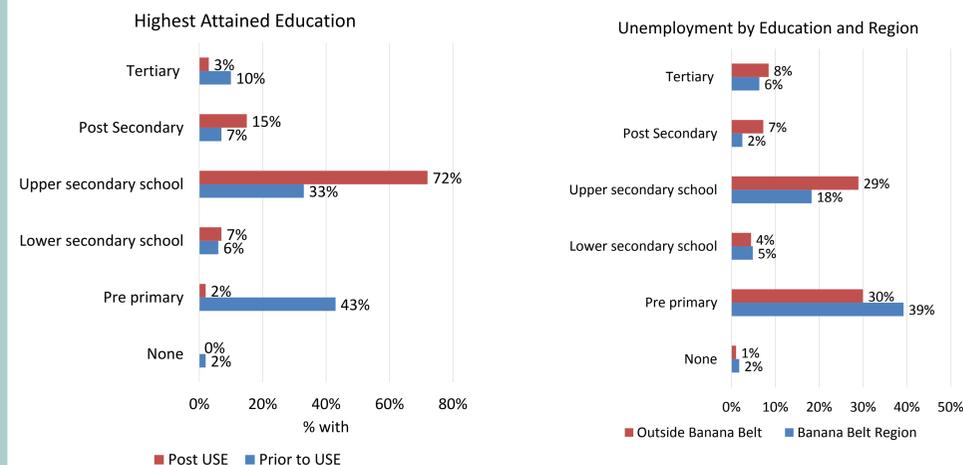
- Utilize the Saint Lucian Labour Force Survey
- Develop a logistic model due to unemployment being dichotomous and therefore (1/0)
- Codify proxies per hypothesis and separate by gender.
- Calculate likelihood and odd ratios of being unemployed.

Personal traits	Gender (1/0), age, employed or unemployed (1/0),
Education	Dummy variable introduction of USE, highest attained education
Banana	Demarc locations across the island as banana belt zones
Household status	Head of home variables, mobility and use of IT

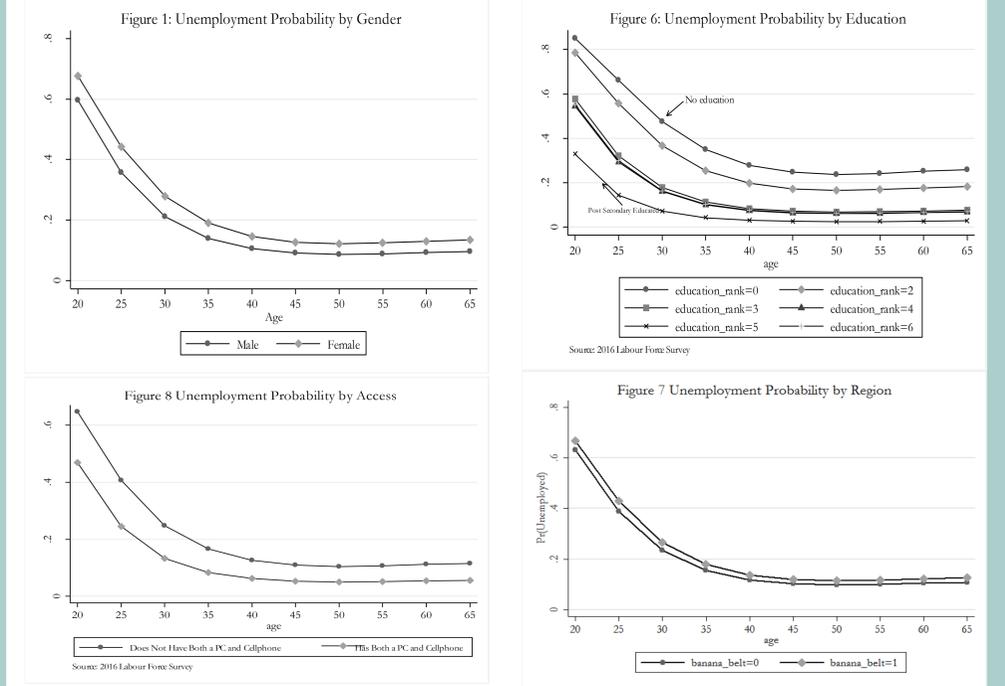
Data Analysis

$$\Pr(\text{unemployed} = 1) = F(\beta_0 + \beta_1 \text{Age} + \beta_2 \text{Education} + \beta_3 \text{Gender} +$$

Results



Results (contd.)



Conclusion

- Educational attainment and 'access', to the labour market were negatively correlated with the probability of being unemployed, albeit with a clear gender divide .
- Persons residing in banana communities had similar unemployment likelihoods as those who lived elsewhere.
- The USE variable was not significant at conventional levels of significance, but the results did show that those who did not benefit from the initiative were 1.7 times more likely to be unemployed.

References

- Aldrich, John H, and Forrest D Nelson. 1984. *Linear Probability, Logit and Probit Models*. Beverly Hills CA: Sage University.
- Azeng, Therese, and Thierry Yogo. 2013. "Youth Unemployment and Political Instability in Selected Developing Countries." *Working Paper*. African Development Bank Group . 1-12



CONTRIBUTION OF SMALL RUMINANTS TO ST. LUCIA



Petriana Daniel

Introduction

With an expected increase in the world's population, the demand for the consumption of meat is expected to increase. Small ruminants have been a traditional part of the regional agricultural landscape and the industry in itself is well placed for development. Throughout the region the industry is relatively small but has been shown to contribute to poverty alleviation, improving rural livelihoods, while also boosting food security. Rearing of small ruminants is also advantageous because the products and byproducts are able to be traded both on a regional and international level. Ruminants also possess significant health benefits that mesh well with the lifestyle of conscious consumers. The development of small ruminants could play a key role in the agricultural sector and the country beyond.

This piece explores the opportunities and provides recommendations to alleviate the constraints which exist so as to contribute to the development of the small ruminant industry in Saint Lucia.

Background

- Data exist for pork and poultry production but not that of small ruminants.
- Small ruminants play an integral part in the development of the rural livelihoods and continue to play a valuable role in sustainable agricultural sector.
- This research piece was undertaken to assess the viability of the development of small ruminant industry in St. Lucia with main focusing being on goats and sheep production.

NUTRIENT	GOAT	LAMB	BEEF	CHICKEN	PORK
Cholesterol (mg)	63.8	78.2	73.1	76	73.1
Protein (g)	23	24	25	25	25
Lipids (fat) (g)	2.6	8.1	7.9	6.3	8.2
Saturated fat (g)	0.79	2.9	3.0	1.7	2.9
Calories	122	175	179	162	180

Objectives

- Examine the opportunities that exist within the small ruminants sector that could benefit the Agricultural sector and St. Lucia
- Assesses the constraints hindering the development of the industry
- Make the necessary recommendations

Opportunities

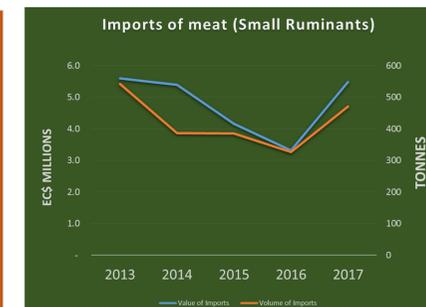
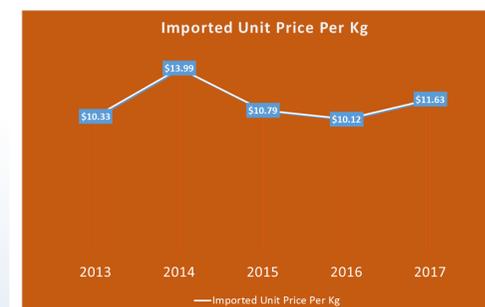
- Caricom's population is expected to increase. The staggering food import bill is also set to increase. The development of the industry will reduce in expenditure on imports and create employment.
- In the fight against chronic life style diseases the increase in promotion of the nutritional value of meat from small ruminants will cause an upsurge in demand.
- Meat is uniquely positioned to be developed as a premium meat because of its nutritional content hence it can be marketed to the tourism sector, supermarkets and also exported as a gourmet product.
- As soon as the meat and milk production has been established the commodity chain can be expanded to include further value added products and as well as by-products.
- Intra-regional trade in frozen semen and possibly embryos form high-value stock can be explored as an economical means of sharing genetic material which would then contribute to industry growth and act as additional revenue stream for farmers.
- The manure from sheep and goat in its pure state and as part of a rich compost can be used to increase soil fertility and can further be processed to produce biogas.



Constraints

- Inadequate investment in the small ruminants sector
- Modern breeding methods and programs are almost non-existent leading to poor genetic stock
- Technical support from the livestock division within the agricultural sector is inadequate
- Lack of land and forage for grazing
- Products do not meet market quality and the value chain is weak
- No slaughter facilities that are hygienic, poor handling and food safety practices
- "Economies of scale" is a daring problem

Results



Results (Cont'd)

2017	
Imports Volume in kg	471,065.43
Imports Volume in Lbs.	1,036,344
Average number of goat/sheep required to meet import demand	11,515
Number of goats on island (Domestic Demand)	9,361
Total Small Ruminants demand for meat in Saint Lucia	20,876
Total number of Small ruminants farmers	795
Average number of goats/sheep per farmer	12
Average number of small ruminants to meet island demand for meat	26

2017	
Price per lb on Domestic Small ruminants	\$9.00
Number of Small ruminants on island	9,361
Estimated Revenue from Sale of Meat	\$7,582,410
Current Benefit per farmer	\$9,538
Total Small Ruminants demand for meat in Saint Lucia (Imports + domestic demand)	20,876
Estimated Revenue from Sale of Meat	\$16,909,506
Number of farmers	795
Potential Benefit per farmer	\$21,270

Recommendations

- Government need to lend support to help build the capacity of farmers and enhance production
- The Agriculture Sector under the livestock development program need to work with regional and international organizations to develop the small ruminants sector.
- The use and management of the current meat processing facility
- Further develop and implement the land bank initiative
- Strengthen and expand the value chain
- Establishment of stronger cooperatives to move the industry forward and make its product and by product more readily available.

References

- Ansari Hosein, C. P.-B. (2013). *The Small Ruminant Industry in Caricom Countries with particular reference to Jamaica and Trinidad*. Jamaica: Caribbean Agricultural Research and Development Institute.
- Caribbean Agribusiness. (2016). *Sheep and Goats*. Retrieved from Caribbean Agribusiness: <https://agribusiness.org/products/sheep-goats>
- Colorado State University. (2018). *Raising Sheep and Goats for Profit: Small-Scale Ruminant Production*. Retrieved from articles.extension.org: https://articles.extension.org/sites/default/files/Raising%20Sheep%20and%20Goats%20for%20Profit_final_1.pdf
- Food and Agriculture Organization. (2014, April). *Developing a Small Ruminant Industry*. Retrieved from Food and Agriculture Organization of the United Nations: <http://www.fao.org/3/a-ax508e.pdf>
- Serge E. P. Mensah, Patrice Y. Adégbola, Aimé K. Edénakpo, Nestor Adjovi Ahoyo, Isidore Gbégo Tossa and Fatunbi AO (2017). *Innovation Opportunities in Small Ruminants Livestock Sector in Benin*. Guide book 2, Forum for Agricultural research in Africa.

An exploration of the Manufacturing Sector in Saint Lucia

Jilayne Clery-King & Janai Leonce



Abstract

The Manufacturing Sector is considered the third most critical sector in the economy of the Island as it encourages global trade, economic growth, creates employment and is a source of innovation. Since the 1990s, the sector has endured sluggish growth. This has also been marred by the changing nature of global competition as well as structural changes and limitations. Therefore, understanding the various factors affecting performance, productivity or efficiency of the manufacturing sector is vital. Consequently this report presents the findings of a survey of thirty-four manufacturing companies interviewed in 2016.

On a broader economic basis firms cited the payment of VAT at the port, a lack of HACCP and other compliance certification, limited shipping routes and weak linkages with the tourism sector as concerns. Towards the end of this report specific actionable steps which government can take to mitigate sector concern and improve growth were highlighted. Key among these were: the financing of a business incubator, the accreditation of key agencies such as SLDB and TEPA and the development and implementation of a new tax regime to effectively tackle issues surrounding VAT.

Background

- ❖ The Manufacturing sector account for 6.5 percent of the total number employed in the economy.
- ❖ In addition to creating productive employment, manufacturing is an export driver and a key foreign exchange earner.
- ❖ Contributes 4.8 percent to GDP and growth has fluctuated over the past 5 years.
- ❖ The manufacturing sector comprises nine sub-sectors: food, beverages, wood and wood products/ furniture/rubber, soap and soap products, commercial and banana boxes, plastic products, metal products and printed material.

Objective

- ❖ To gain a better understanding of the sector in an effort to craft targeted and effective policy (the structure of manufacturing operations, concerns and challenges)
- ❖ To foster a stronger relationship between the various Ministerial Departments of Government of Saint Lucia and the Manufacturing sector.
- ❖ To encourage stronger ministerial relationships.

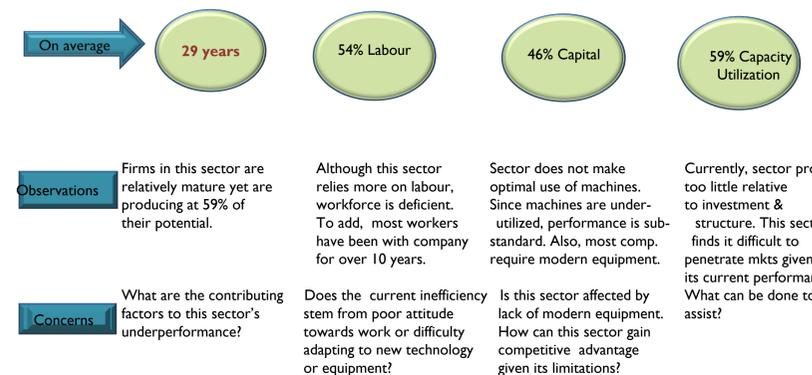
Methods

- ❖ Developed a standard questionnaire inclusive of open and closed ended questions and conducted face to face interviews with 34 manufacturing firms in total.
- ❖ Ensured that all nine sub-sectors were represented.

Data Analysis

- ❖ Data was collated into a database and key trends were extrapolated.
- ❖ Also, follow-up interviews were conducted with TEPA, SLBS and Lucelec based on the findings of this research.

Results



Results (contd.)

Specific concerns common to most meetings were:

Value Added Tax	<ul style="list-style-type: none"> Impeded their cash flow and subsequently financial viability. Departure to the modus operandi under the Consumption Tax regime
Standards and Certification	<ul style="list-style-type: none"> A disparate system of either adaptation or compliance to local or international standards There was also the issue of which certification or compliance mechanism a producer should employ
Shipping and Transportation of Goods	<ul style="list-style-type: none"> High cost to ship across the islands and the unavailability and limited timing of certain route Timing of shipping routes hinders their competitiveness
Linkages with Tourism	<ul style="list-style-type: none"> Limited contractual arrangements to supply hotels This inhibits manufactures from formally planning their business activities around hotel output Manufactures are unable to approach financial institutions to source funding
Ability to Access Finance	<ul style="list-style-type: none"> 9-12% interest rates not amenable to high cost low volume producers Little financial analysis of unit cost and profitability per product Limited business analysis or market research hinders growth and potential to access finance
Utilities	<ul style="list-style-type: none"> Water: Not much of a concern except some quality and availability issues. Electricity: High cost of electricity Solar technologies hindered to partial use of their facilities i.e. 25 (KWp)
Education	<ul style="list-style-type: none"> Paucity of workers with skills in the technical vocations such as electrical, plumbing, refrigeration Lack the intuitive skills necessary to fully master and control heavy machinery Work ethics and soft skills appear lacking with the ability of staff to learn and adapt to new scenarios being somewhat weak

Conclusion

- The performance of the manufacturing sector is more sensitive to changes in labour and human issues than capital given the high percentage of human capital vis a vis capital.
- The sector under produces. Capacity utilization rates of 59% mean that assets are under utilized. This has issues for the cost of production and efficiency.
- High cost of production, limited certification of products or processes and low-skilled labour, fundamentally limit the degree to which firms can export and grow.
- The government and government agencies need to:
 - Assist more firms in conducting market research and raise the level of product development. This can be achieved through bolstering TEPA and SLBS. Both agencies need to become ISO certified.