Developing Country Studies
ISSN 2224-607X (Paper) ISSN 2225-0565 (Online)
Vol.8, No.2, 2018

Technology and Intercountry Trade in EAC

Dr. John Yabs,
Senior Lecturer, School of Business, University of Nairobi. P. O. Box 5384-30100, Eldoret, Kenya.

Abstract
Application of technology in the promotion of international trade between countries has increased in the last 20 years. East African countries have been using technology in increasing proportions and applying new technological applications as they appear. The use of social media as a promotion tool has gained currency especially after 2013. Facebook, twitter, PayPal, e-mail, swift, electronic money transfer has improved international payment and settlement systems of accounts. This study was conducted between 2010 to 2015 with two objectives: one was to establish which kind of technology is mostly used by business organizations in East African countries to promote their intercounty trade; and two, how has the application of technology improved in the promotion of trade in East African countries. The literature reviewed indicated that most firms used conventional means of known technology and less use of the modern technology. The methodology adopted was a survey conducted in all the six EAC countries and adjacent neighbouring countries. Interviews were conducted on the top management of concerned firms and information obtained was analysed using content analysis. The results of the study showed that some firms, especially those who have embraced new technological methods of management have adopted new information technology and have established connection in all the EAC member-states. Although some countries like Burundi and Southern Sudan have not developed fully their technological infrastructure, it was found out that some firms and individual businessmen within those countries have invested on appropriate information technology and are ready to use it. The results of this study indicated that the application of the latest technology to promote intercountry trade has increased the volume of trade between member states.
Keywords: intercountry trade; social media technologies; social marketing; modern technology; EAC protocols; free trade; common market.

1.Introduction

The use of technology in the value chain activities in the process of production, transportation, processing, marketing and consumption has been recognised since industrial revolution. Ever since Adam Smith, David Ricardo, Leontief Paradox Theories to Rugman's economies of scale theories together with Michael Porter's competitive advantage theories, the role of technology has been recognised to plays a very important part in increasing efficiencies in machine and human effort (Hill, 2012; Yabs, 2007). East African countries (EAC) of Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda have been thriving due to increased use of technology in all activities of exchanging goods and services across borders (TCCIA, 2015). Transportation and telecommunications connections between EAC member-states has made it even more easier to trade, not only within the economic bloc, but to conduct business also with the neighbouring countries of the larger Eastern African Region, the Horn of Africa, and the Inter-Governmental Authority (IGAD) member states. The East Africa being covered in this study is confined to the member-states of the regional economic block of East African Community (EAC), as defined in the protocols of the union (EAC Secretariat, 2014).

The motivation for this study was the increasing use of modern telecommunications technologies to promote trade and business in the EAC region. After reading extensively on the documented evidence on the use and application of technology in the promotion of trade, I realised that there was a deficiency both methodologically and empirically in the existing literature on the subject of intra-state trade within EAC. The researcher sought to establish how widespread was technology used by ordinary traders in the five member-states and what kind of technology and technological applications were popular among both traders and consumers. Was there any use of B2B e-business or how widespread was B2C electronic commerce? How far has social media been used to promote trade? These were the questions the researcher sought to find answers to.

This study was conducted between 2010 and 2015 focusing on intra-country trade in five East African member-states, which have since increased to six member-states, after adding Southern Sudan in 2016. This research had two objectives in mind: one was to establish which kind of technology is mostly used by business organizations in East African countries to promote their intercounty trade; and two, how has the application of technology improved in the promotion of trade in East African countries and what were the future prospects? The main problem of this study was to determine the role the technology has played in the promotion of EAC trade and to find out how far social media has been used in promoting business in EAC countries.

Table 1: Internet penetration in EAC Countries

Country	Population	Internet	Facebook
Burundi	10m	526,000	340,000
Kenya	46m	31m	5.3m
Rwanda	12m	3.2m	510,000
South Sudan	12m	1.9m	150,000
Tanzania	51.3m	7.5m	2,700
Uganda	37m	11.9m	1.8m

Source: *Internet worldstat, September 2015: www.internetworld.com*

The rate of internet penetration in EAC is still slow. As Table 1 shows, internet is more developed in Kenya, Tanzania and in Uganda than in the other countries. But South Sudan is developing faster than Burundi despite its challenges in political stability and poor internet connectivity. Most traders in South Sudan and Burundi use social media for their businesses, and thus have attracted a lot of businessmen to these countries even with political challenges. Kenyan traders have been affected several times in Southern Sudan, and at one time were evacuated by Kenya Government. And yet some of these traders who have been in South Sudan earlier, and even new ones, went back to South Sudan due to business opportunities there. This shows that those who have been there before have noticed huge opportunities and high returns that they are willing to risk the second time. The use of modern telecommunication technologies across East Africa and application of social media marketing has been the most important factor driving the growth of businesses in this region.

2. Literature review

The researcher reviewed literature covering trade within the five member states of EAC and also written work on business in East Africa. The researcher found theoretical basis espoused by Linder (1961), Tinbergen (1962) together with modern literature written by Rugman (2012), Hill (2012) and articles written by Makame (2012), Yabs et al (2014) and Ligami (2016), to be relevant to this study. Linder (1961) proposed what has been known as Linder's hypothesis which states that countries tend to trade together due to similarities in the structure of their economies, demand patterns, standard of living and structure of population. EAC countries share these characteristics and can be explained by this hypothesis. Tinbergen (1962) gave us the gravity model in international trade in which he stated that there are many factors that influence trade between neighbouring countries that can include historical and cultural connections, geographical proximity, structure of GDP and shared natural resources. Makame (2012) focused on the integration of EAC countries and emphasized the sharing of resources to speed up the integration. He stated that more trade will mean faster economic development and thus quicken the achievements of the EAC common market. Yabs (2014) wrote on the promotion of consumer goods in EAC and focused on factors influencing consumption of fast moving consumer items commonly used in households in EAC, and concluded that it was driven by the similar levels of purchasing power and their state of economic development. Likami (2016) wrote on the promotion of EAC integration by cross border trade on power and electricity coming from Olkaria Geothermal plant in Naivasha Kenya as promoting standard of living of EAC residents. And Michira (2016) wrote about the EAC negotiations with EU under the auspices of New Economic Partnership and Development (NEPAD) that will further enhance EAC cooperation and increase bargaining power of EAC states.

Theoretical literature reviewed indicated that trade developments within EAC still follow the predictable patterns of the older regional trading blocks of EU and the ASEAN. The regional integrations theory, explaining different stages of grown of which every new regional organization follows according to European Union Model. These stages start from stated intention by a group of countries to create or establish a Preferential Trade Area. This is followed by Customs Union, followed by Common Market, followed by Economic Union, and lastly followed by a Political Federation. Empirical literature indicated that regional trade, as is practiced today, is influenced by dynamic environmental forces that change in matter of weeks and months (Were, 2015). The literature may not fully analyse these happenings which profoundly affect developments in trade. Rapid political changes and fluctuating economic performance of different countries, influence the practice of trade among EAC member-states.

Table 2: Import and exports from each of EAC Countries

Countries		2010	2011	2012	2013	2014
Burundi	Export	12.6	24.4	16.0	32.6	25.5
	Import	89.4	2 67.1	147.2	346.4	126.1
	Balance	(76.8)	(242.7)	(131.2)	(313.8)	(100.6)
Tanzania	Exports	394.3	416.8	519.8	1120.0	601.0
	imports	295.5	378.0	678.6	397.0	709.9
	Balance	98.8	378.0	158.8)	723.0	108.9)
Uganda	Exports	613.4	652.9	762.8	783.1	799.4
	Imports	530.7	7 05.9	6 65.1	6 76.2	674.1
	Balance	82.7	(52.9)	97.7	1 06.8	125.3
Kenya	Exports	1,278.7	1,544.7	1,596.4	1,450.9	1,428.3
	Imports	256.8	302.9	365.1	3 34.5	415.9
	Balance	1,021.8	1,241.8	1,231.4	1,116.4	1,012.4
Rwanda	Exports	55.2	81.2	3 43.5	122.5	142.3
	Imports	340.7	384.9	447.8	413.2	546.2
	Balance	(285.5)	(303.8)	(104.3)	(290.7)	403.9)

From Table 2, which show Import and exports from each of EAC Countries, it can be seen that intra-country trade between and among the EAC member states has been growing steadily from 2010 to 2015, and is projected to continue in 2016 and beyond. Statistics in Table 1 and Table 2 show that the use of internet connectivity and application of social media marketing, especially in Rwanda, Burundi and South Sudan, indicate that these three countries will be able to increase their trade share in the economic region of EAC in the foreseeable future.

Recent events in Rwanda and Southern Sudan frustrated business activities across the region and can lead to huge loses for some traders. Most empirical writers are optimistic of the resilience of EAC economies to weather these temporary hiccups for the good and brighter EAC future. Literature on the rate of absorption and application of technology in the promotion of business in EAC are optimistic that this will grow because the continuing use of social media marketing for goods and services is growing at phenomenal rate despite poor technological infrastructure in rural and remote areas. The use of smart phones and the continued acquisition of G3 and G4 hand sets by businessmen in every town and hamlet gives them the possibility of acquiring goods and services in greater quantity and quality (Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) Annual Report, 2015).

3. Methodology

The methodology adopted was a survey of randomly selected traders in major cities in EAC that could be accessed through the modern ICT. Businessmen exporting goods from Nairobi and Mombasa as well as Eldoret were interviewed and their responses were recorded. Respondents were interviewed from large agribusinesses that export substantial part of their crops to the other EAC countries. A two semi-structured interview guides was used for data collection, one for the traders and one for consumers. Manufacturers of fast moving consumer goods (FMCG) were also interviewed to identify the nomenclature of the products and to find out the destination of their exports.

4. Data collection and data analysis

The data collected included both primary and secondary data. Primary data was collected by way of interview guide that was divided into three sections. One section was for manufacturers in the member states to give us information of their types of products and the destination of their products. Interview guides were used for the firms that were visited by the researcher and collected information form marketing managers and marketing executives. The researcher used the internet by way of emails, SMS and Facebook to collect information from traders in other cities and towns. Websites of companies was of great help in getting detailed information. Also, the researcher visited a number of traders in Nairobi, Mombasa, and Eldoret that were involved in export trade to the other member states of EAC. Data was collected from large commercial agricultural farms where the researcher wanted to establish what proportion of their exports were destined for EAC member states.

Secondary data was collected from trade promoting institutions in each country. Private trade promotion organizations and the ministries of EAC were of great value. The National Chambers of Commerce, Agriculture and Industry from their headquarters in the capital cities of Dares salaam, Nairobi, Kigali, Bujumbura, Kampala and in Juba were contacted and gave us invaluable information. The information received was tabulated and analysed using content analyses and secondary data was analysed using descriptive statistics.

5. Results and discussion

Most manufacturers in Kenya wo were exporting to all EAC countries expressed their optimism that trade will continue to flourish between the member states. Trade from Rwanda and Burundi to other EAC member's states was very little and none at all from South Sudan. There were a number of Tanzanian manufacturing firms selling to Kenya and the other member states in huge quantities. In 2014 Tanzania imported goods worth Ksh.2.8 billion while Uganda within the same year imported goods worth Ksh.2.5 billion (Kenya National Bureau of Statistics, Economic Survey 2015). Tanzania has thus overtaken Uganda as the leading destination of Kenyan manufactured goods. The main reason was that Uganda, within the period under review of 2010 to 2015, has increased its investment in manufacturing, thus producing similar goods as previously imported from Kenya. Uganda still exports a lot of agricultural goods, especially maize which is harvested earlier than Kenyan harvest season. In fact, seasonally, Kenyan maize farmers accuse Ugandan maize farmers for spoiling their market and distorting prices when maize is off season in Kenya. Big fruit bananas from Uganda still find a lot of market in Kenya as well as green bananas for cooking. From Tanzania, Kenya in the largest market for citrus fruits like oranges, tangerines, lemons and litchi fruits. Vegetable like onions, French beans, carrots, tobacco, cotton, maize or corn, and other agricultural goods cross the boarders in Loitokitok, Namanga, Isebania and along the shores of Lake Victoria.

6.Conclusion and recommendation

The findings of this study showed that the use of modern information and telecommunication technologies has enhanced business development in East African countries. The increasing development if ICT infrastructure and the increasing use of social media marketing has helped to increase trade volumes in EAC countries. The quality of businessmen and the increasing quantity of those with computer knowledge will greatly push for the use of social media marketing. Traders in the capital cities of EAC members state as well as in commercial centres are continuing to use internet and various media network like WhatsApp's, Twitter, Facebook Messenger, and Instagram. These media internet networks allow social sharing of content, videos and images for marketing purposes.

It is recommended that further studies be conducted in the increasing use of various media networks to promote business in various sectors of the economy and even in different industrial sectors. Continued use of internet and social marketing has great potential in increasing trade between the East African countries of Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda.

7. References

Baird, C.H. and Parasnis, G. (2011). From Social Media to Social Customer Relationship Management. *Strategy and Leadership, 2011-Emeraldinsight.Com.*

Geda, A. and Seid, E.H. (2015). The Potential of Internal Trade and Regional Integration in Africa. *Journal of African Trade, |December 2015.*

Goff, M. and Sing, R.J. (2014). Does Trade Reduces Poverty? A Review from Africa. *Journal of African Trade, |December 2014.*

Hill, C. (2014). International Business. Competing in the Global Marketplace. *McGraw-Hill Education.*

Hoekman, B. and Shepherd, B. (2015). Who Profits from Trade Facilitation Initiatives? Implications of African Countries. *Journal of African Trade, December 2015.*

Ligami, C. (2016). *Renewable Energy World.* East African Commercial Trade of Power from Olkaria Geothermal Plant.

Makame, a. (2012). The East African Integration: Achievements and Challenges. *Great Insights, V.1, Issues 6, August 2012.*

Mangold, W.G. and Faulds, D.T. (2009)/ Social Media: The New Hybrid Element of the Promotion Mix. *Business Horizons, 2009-Elsevier.*

Melo, J. and Regolo, J. (2014). The African Economic Partnership Agreements with European Union: Reflections Inspired by The Case of the East African Community. *Journal of African Trade, December 2014.*

Michira, M. (2016). Trade Deal Between East African Community and the European Union. *http://www.standard newspapers.co.ke.*

Porter, M.E. (1990). The competitive advantage of nations. Macmillan, London. Posner, M.V. (1961). *International trade and technical change. Oxford Economic Papers, 13, 323- 341.*

Rugman, A.M. (2012). International Business. Pearson Publications, 6th Edition.

Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA). Annual Report, 2015

Trade Mark East Africa Report of September1, 2014. *www.eabc.info/partners/trademark-east-africa-tmea.*

Trusor, M., Bucklin, R.E. and Pawels, K. (2009). Effect of Word-Of-Mouth Versus Traditional Marketing: Findings from an Internet Social Networking Site. *Journal of Marketing, 2009, V6, Issue 4 Pp65-72.*

Were, M. (2015). Differential Effect of Trade on Economic Growth and Investment: A Cross-Country Empirical Investigation. *Journal of African Trade, |December 2015.*

Yabs J., and Ndambuki V. (2014). Virtue Ethics in Marketing FMCGs in East African Common Market. *Journal of Developing Country Studies, ISSN (Paper) 2224-607X ISSN (Online) 22250565. pp36-42.*

Yabs, J. K. and Awuor, E. (2016). Market Orientation and Fruit Exporting Firms in Nairobi City County in Kenya: A Theoretical Perspective. IISTE *European Journal of Business and Management Vol 20(2016), pp17-34*.

Yabs, J. K. and Awuor, E. (2016). Market Orientation and Firm Performance in Fruit Exporting Companies in Nairobi City County in Kenya: An Empirical Review. IISTE *Journal of Marketing and Consumer Research. Vol 20(2016), pp17-34*.

Yabs, J. K. and Awuor, E. (2016). Market Orientation and Firm Performance in Fruit Exporting Firms in Kenya. *International Journal of Management Sciences. V.3.iss 4. pp65-73.*

Yabs, J.K. (2015). Market Segmentation Strategies Used as Competitive Advantage Tool: A Case of Chloride Exide Kenya Limited. *Journal of Economics and Sustainable Development. Vol 5 No.26, 2014. P42-48*