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Impact of Informal Cross Border Trade on Livelihoods: A Case of Rubavu District

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Abstract

Informal Cross-Border Trade (ICBT) constitutes a major form of informal activity in most developing countries and plays a significant role in changing the livelihood of people and alleviating poverty. Nevertheless, the sector has not been accommodated within the city and national policies, it provides employment opportunities as a means of income generation for the urban poor, especially for those who migrate from the rural areas. It also provides to consumers convenient and accessible retail options and forms a vital part of the social and economic life of a city. The study entitled "Impact of Informal Cross Border Trade on Livelihoods; a case of Rubavu District" was guided the following specific objectives: to analyze the informal cross-border trade at Rubavu border between Rwanda and the Democratic Republic of Congo; to assess the prominence of livelihoods of informal traders in Rubavu District; to find out the relationship between informal cross border trade and the level of livelihood of informal traders in Rubavu District. The study used descriptive and correlational research design. The sample size of the study was 188 informal traders. A questionnaire was used to collect data and finally the study used descriptive statistics and inferential statistics as method of data analysis. The findings revealed that 71.8% of respondents strongly agreed that rules and regulations on border play a major role in determining the growth of ICBT. 72.3% of respondents strongly agreed that there is high cost of registering small business. 62.2% of respondents strongly agreed that tax laws of Rwanda are well defined. About the trade of commodities, 52.7% of respondents strongly agreed that they buy and sell agriculture products from Rwanda to DRC. About market and marketing, 84% of respondents strongly agreed that the informal cross border product marketing is the way of refusing the Government taxes. 87.2% of respondents strongly agreed that their source of income saving increased over the last three years (after joining ICBT). The findings indicated that there is high positive significant linear relationship between taxation policy and livelihood improvement in Rubavu District at r = 0.723^{**} ; p-value = 0.000 < 0.01. The findings indicated that there is moderate positive significant linear relationship between trade commodities and livelihood improvement in Rubavu District at $r = 0.635^{**}$; p-value =0.001 < 0.01. Based on the findings, the study concluded that there is positive effect on ICBT towards livelihoods of informal cross border traders in Rubavu District where the variation in livelihoods of its beneficiaries was related to changes in policy and legal framework, taxation policy, trade commodities and marketing strategies. The research recommended that Rwandan government should educate the business community about different tax rates, mode of payment because some informal traders do not know those rates and the mode of assessment.

Key concepts: Informal cross border trade, livelihood, improvement. **DOI:** 10.7176/EJBM/14-22-08 **Publication date:** November 30th 2022

1. Introduction

1.1 Background of the study

Informal Cross Border Trade (ICBT) has increasingly become globalized, with trading networks extending across continents. O'Neill (2018) interviewed the African continent and noted that particularly the South African and Nigerian traders in Hong Kong and China, where they come to order counterfeit goods and copies of brand-name products for delivery to Africa. The informal sector engages in both legitimate and illegitimate businesses with the aim of earning a living. Cross-border trade is the buying and selling of goods and services between businesses in neighboring countries, with the seller being in one country and the buyer in the other country (Muiruri, 2017). The informal cross-border trades not only the source of income for people to meet their daily household needs and but also the main source of their employment (Jawando, Adeyemi and Laguda, 2017). In Africa, ICBT remains a vital form of trade that provides a form of livelihood for many households. This is evidenced by statistics made available by the International Labour Organization (ILO, 2018) indicating that informal employment, including ICBT, makes up a large percentage of non-agricultural employment on the continent, that is, 48% in North Africa and 72% in sub-Saharan Africa. A study conducted by the ILO (2018) indicated that 85.8% of employment in sub-Saharan Africa. In Rwanda, Informal Cross Border Trade plays a significant role in alleviating economic hardships, reducing poverty, enhancing welfare and human population

among the livelihoods (Manirampa, 2014). Despite this tremendous support to the livelihoods of African population, particularly small scale traders, ICBT is considered as illegal commercialization of cross border daily practices. The main informal export destination for Rwanda is the Democratic Republic of Congo which accounts beyond 80% of the informal cross border trade in the western province, mainly Rubavu and Rusizi borders (Manirampa, 2014).

1.2 Problem statement

Informal cross-border trade in Rubavu District involves a significant number of entrepreneurs from Rwanda and DRC. Most informal traders have no education and raise capital from their own resources or through loans from friends and relatives. Traders are generally not bankable nor do they have assets that Banks would accept as collateral (Afrika & Ajumbo, 2017). ICBT in their quest for making a living, many of these people have limited choices other than taking to the streets by engaging into street vending activities. Muga (2018) indicated that high rates of retrenchment in urban centers caused more people to be involved in ICBT. Although the sector has not been accommodated within the city and national policies, it provides employment opportunities as a means of income generation for the urban poor, especially for those who migrate from the rural areas. It also provides to consumers convenient and accessible retail options and forms a vital part of the social and economic life of a city. Different researches conducted on street vending informal business activities show that informal traders play a significant role in changing the livelihood of people and alleviating poverty by creating employment and income generating activities. Therefore, this study seeks to assess the impact of informal cross border trade on livelihood of traders in Rubavu District.

1.3 Research objectives

The study was guided by the following specific objectives:

i. To analyze the informal cross-border trade practiced at Rubavu border between Rwanda and the Democratic Republic of Congo.

ii. To assess the level of livelihood of informal traders in Rubavu District.

iii. To find out the relationship between informal cross border trade and the level of livelihood of informal traders in Rubavu District.

1.4 Study area

The study was carried out at Rubavu borders i.e. two border sites, petite and grande barrière between Goma (North Kivu province-DRC) and Gisenyi (Rwanda).Rubavu District is located at latitude of 1° 55' South and longitude of 29° 38' East, with an altitude of 2,340 m above sea level (Rukundo et al., 2019). The border sites were mainly selected because of the relative importance of the informal trade and the similarity of business activities. The borders located in Northwestern of Rwanda, at approximately 145 kilometers from Kigali City. Most of the goods traded across the border are agricultural food commodities composed of beans, maize, potatoes, fruits, vegetables, etc. Vegetables and fruits are mainly traded through informal cross border trading (ICBT). Livestock mainly composed of cattle, goats, sheep, and pigs are exported into the DRC through this border.

2. Methodology

2.1. Research design

Descriptive statistic and inferential statistics were adopted as the overall research design in this study. Descriptive research design was useful in describing quantitatively the level of ICBT in terms legal framework, taxation policy, types of commodities and marketing and also descriptive research design was useful in describing the level of livelihood improvement in terms increase of income, savings, employment creation and household assets. Inferential statistics especially multiple linear regression and correction analysis was used to determine the relationship between ICBT and livelihood improvement of informal traders in Rubavu District.

2.2 Sample size determination

According to Rubavu District report, 2022, the informal traders who frequently cross the border of Rwanda and DRC is around 356. The study targeted 356 cross border traders operating across the Rwanda DRC-Rubavu border. As it not possible to involve all 356 traders in this study, the researcher used Yaman (1967) formula to determine the sample size to be used in data collection. Therefore, the sample size is calculated as follow:

$$n = \frac{N}{1 + N(e)^2}$$

Where: n= the sample size, N= Population size and e= the margin of error (5%).

$$n = \frac{356}{1+356 (0.05)^2} = \frac{356}{1.89} = 188.3 \approx 188$$

The study collect data on 188 cross border traders.

2.3. Data collection

Questionnaire: The researcher collected data through questionnaire, and documentation to obtain up-to-date information. In this study, a questionnaire was designed and pre-tested before administering it to all selected respondents and the structured questionnaire contains both close and open ended questions. The questionnaire was developed in line with objectives of this study. The questionnaire is comprised of four categories: the first is the questions relating to the profile of the respondents, the second is the questions relating to the level of ICBT the third is the questions relating to the level of livelihood improvement in Rubavu District and the fourth is the questions relating to the relationship between ICBT and the livelihood improvement. A questionnaire is a preformulated written set of questions to which the respondents record the answers usually within rather closely delineated alternatives.

2.4. Data analysis

Descriptive statistics: Descriptive statistics such as mean, frequency and standard deviation were used to assess the impact of Informal Cross Border Trade on livelihood improvement

Multiple regression models: Multiple regressions analysis was used in order to assess the effects of multiple predictor variables (rather than a single predictor variable) on the dependent measure. A multiple regression model was also used to test the significance of the effect of the independent variables on the dependent variable. Based on other models that were used to test the level of IBCT, the present study adopted the following model:

2.5 Model specification

The following econometric model was used as follow:

The equation (Y = $\beta 0+\beta_1x_1+\beta_2x_2+\beta_3x_3+\beta_4x_4+e$)

Where $B_o = \text{constant}$

Where: Y = Livelihood improvement

 $\{\beta_i; i=1, 2, 3 \text{ and } 4\}$ = The coefficients representing the various independent

Variables $B_0 =$ the Y intercept

{Xi; i=1, 2, 3 and 4= Values of the various independent (covariates) variables.

e = the error term which is assumed to be normally distributed with mean zero and constant variance, Y= Livelihood improvement, X1= Policy and legal framework, X2 = Taxation policy, X3= Trade commodities, X4=Marketing

3. Research results

3.1. Descriptive results

3.1.1. Markets and marketing information

The study sought to assess the views of respondents on markets and marketing information. To achieve this, the respondents were asked to give their opinion on their level of agreement or disagreement with the statements regarding markets and marketing information. The results were presented in the Table 1:

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	SD		D		Ν		Α		SA		Mean	St.
	fi	%	fi	%	fi	%	fi	%	fi	%		Dev
The informal cross boarder product marketing is the way of refusing the Government taxes		.5	3	1.6	0	.0	26	13.8	158	84.0	4.79	.57
The cross border vegetables marketing is the main source of your income	1	.5	10	5.3	9	4.8	4	2.1	164	87.2	4.70	.83
Cross border product marketing pay vital role for the household food security accessibility		.5	25	13.3	0	.0	12	6.4	150	79.8	4.52	1.06
ICBT is a victim for conflict	1	.5	1	.5	0	.0	4	2.1	182	96.8	4.94	.39
ICBT helped traders to bargain prices of products	13	6.9	16	8.5	7	3.7	16	8.5	136	72.3	4.31	1.28
The cross border market is better than local marketing for the sake of getting fair price		17.0	1	.5	0	.0	27	14.4	128	68.1	4.16	1.49
Overall mean											4.6	0.8

Table 1: Markets and marketing information

Source: Primary data, 2022

About market and marketing information, the findings from the Table 1 revealed that The overall view on market and marketing information was at very high mean 4.6 which implies that there is strong evidence of existing fact on marketing at very high extent and standard deviation of 0.8 which implies that there is a heterogeneity response.

3.1.2. Level of livelihood improvement on informal traders

The study sought to assess the views of respondents on livelihood improvement on informal traders. To achieve this, the respondents were asked to give their opinion on their level of agreement or disagreement with the statements regarding livelihood improvement on informal traders. The results were presented in the following table:

	SD		D		N		А		SA		Mean	St.
	fi	%	fi	%	fi	%	fi	%	fi	%		Dev
My source of income has been increased over the last three years	1	.5	7	3.7	0	.0	16	8.5	164	87.2	4.78	.68
There is increase of sales volumes of small business enterprise	7	3.7	0	.0	34	18.1	41	21.8	106	56.4	4.27	1.01
My financial savings in financial institutions has been increased over the last three years		.5	1	.5	0	.0	127	67.6	59	31.4	4.29	.55
I have more cattle and other livestock as my household savings over the last three years		.5	9	4.8	10	5.3	17	9.0	151	80.3	4.64	.83
I have reserved foods to my household as savings over the last three years	1	.5	36	19.1	29	15.4	17	9.0	105	55.9	4.01	1.24
I bought a piece of land over the last 3 years	9	4.8	26	13.8	16	8.5	8	4.3	129	68.6	4.18	1.32
I have bought transportation means over the last three years	1	.5	17	9.0	8	4.3	2	1.1	160	85.1	4.61	.97
I built my house (rehabilitee my house) over the last 3 years	1	.5	21	11.2	14	7.4	10	5.3	142	75.5	4.44	1.07
I'm able to buy household materials like television and mattress	16	8.5	15	8.0	0	.0	40	21.3	117	62.2	4.21	1.29
Overall mean											4.38	0.99

Table 2: Level of livelihood improvement on informal traders

Source: Primary data, 2022

About the level of livelihood improvement of informal traders, the findings from the Table 2 revealed that the overall view of respondents on of livelihood improvement of informal traders was at very high mean 4.38 which implies that there is strong evidence of existing fact that of livelihood improvement of informal traders at very high extent and standard deviation of 0.99 which implies that there are heterogeneity responses.

3.2. Multiple regression analysis

With this test, it was assumed that the kind of relationship that exists between independent and dependent variables is linear. To ascertain this, and to know the extent to which the predictors affects livelihoods improvement in Rubavu District, regression test was carried out; the predictors in this case include; marketing, taxation policy, policy and legal framework and trade commodities, while dependent variable is livelihoods improvement in Rubavu District. The findings are presented in table 4.11 below.

		Table 5: Mod	let Summary	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.753ª	.566	.557	.16420

a. Predictors: (Constant), Marketing, Taxation policy, Policy and legal framework, Trade commodities **Source:** Primary data, 2022

Findings established an R-squared value of .566. This meant that when all the independent variables were taken together, they gave an R-squared value of 0.566(56.6%). Thus, the independent variables (marketing, taxation policy, policy and legal framework and trade commodities) taken together could account for up to 56.6% of the total variation in livelihood improvement in Rubavu District at 95% of confidence interval. The remaining 43.4% in the variation in Livelihood improvement in Rubavu District could be explained by other factors not in the model.

	I able 4: ANOVA									
Model		Sum of Squares	df	Mean Square	F	Sig.				
1	Regression	6.443	4	1.611	59.746	.000 ^b				
	Residual	4.934	183	.027						
	Total	11.377	187							

a. Dependent Variable: Livelihood improvement

b. Predictors: (Constant), Marketing, Taxation policy, Policy and legal framework, Trade commodities **Source:** Primary data, 2022

In order to examine on whether the data was good fit for regression model, the ANOVA was undertaken and the data being good fit for data was tested at 5% level of significance. Since from the Table 4.12, indicated an F-value of 59.746 is large than the critical $F(v_1=4,v_2=187)=2.42$ and also because p-value calculated =0.000 is less than Critical p-value =0.05 level of significant. Therefore, this implies that Informal Cross Border Trade such as marketing, taxation policy, policy and legal framework and trade commodities as independent variable are good predictors of livelihood improvement in Rubavu District. Table 4.5: Regression coefficients

		Unstandardized				
Model	l	В	Std. Error	Beta	t	Sig.
1	(Constant)	1.081	.287		3.771	.000
	Policy and legal framework	.314	.046	.015	6.926	.000
	Taxation policy	.587	.040	.754	14.560	.000
	Trade commodities	.101	.033	.001	3.060	.008
	Marketing	.135	.034	.209	4.002	.000

a. Dependent Variable: Livelihood improvement

Source: Primary data, 2022

The equation (Y = $\beta 0+\beta_1 X_1+\beta_2 X_2+\beta_3 X_3+\beta_4 X_4+\epsilon$) becomes:

Livelihood improvement in Rubavu District = $1.081+0.314X_1+0.587X_2+0.101X_3+0.135X_4$

The regression equation above has established that taking all factors into account (Marketing, Taxation policy, Policy and legal framework and trade commodities) constant at zero. Livelihood improvement in Rubavu District will be 1.08. The regression results revealed that policy and legal framework has significance positive effect on Livelihood improvement in Rubavu District as indicated by β_1 = 0.314, p-value=0.000<0.05, t=6.926. The implication is that an increase of one unit in policy and legal framework would lead to an increase in livelihood improvement in Rubavu District by 0.314 units.

The regression results revealed that taxation policy has significance positive effect on livelihood improvement in Rubavu District as indicated by $\beta_2=0.587$, p-value=0.000<0.05, t=14.560. The implication is that an increase of one unit in taxation policy would lead to an increase in Livelihood improvement in Rubavu District by 0.587 units.

The regression results revealed that traded commodities have positive effect on livelihood improvement in Rubavu District as indicated by β_3 = 0.101, p-value=.008<0.05, t=3.060. The implication is that an increase one unit in trade commodities would lead to an increase in livelihood improvement in Rubavu District by 0.101 units. The regression results revealed that marketing has positive effect on Livelihood improvement in Rubavu District as indicated by β_4 = 0.135, p-value=0.000<0.05, t=4.002. The implication is that an increase one unit in marketing would lead to an increase in Livelihood improvement in Rubavu District by 0.135 units.

4. Discussion

Based on the findings, it is obvious that that policy and legal framework influence the engagement in ICBT in Rubavu District. This is evidenced by respondents (72.3%) who stated that there is no clarity in definition of laws and regulation and 59% of them stated that low chance for formal employment leads to the growth of ICBT. Government policies were not effective to actual process, lack of coordination among associating ministries hindered proper implementation of policies. Lack of confidence in social security benefits encouraged new recruits to the trading business and respondents agreed that the culture of a region plays a major role in determining the growth of ICBT in a border-line community. Respondents indicated that improper rules and regulations raised the cost of joining the economy. ICBT has improved the living standards of the stakeholders. Informal trade had boosted socio-economic activities.

The respondents indicated that due lack of formal sector employment many people had opted to ICBT for income sustainability. This finding is supported by Ogalo (2018) who established that opportunities for formal employment are shrinking and as a result, to sustain themselves, people have begun looking for alternatives sources of income.

The study established that most traders were women. Majority of the respondents of the respondents were women traders. The respondents agreed with a great extent that women suffer gender discrimination in the trade. Women were gender biased in during trade. This was in agreement to the study carried out by Ogalo (2018) who stated that the majority of traders in informal sector were women and issues of gender inequality aggravated informal sector therefore, poverty was experienced as the greater part of poor households was headed by women.

The study was in agreement with Bensassi, Jarreau and Mitaritonna (2016) who indicated that economic vulnerability was a result of the marginal jobs poor people tend to have and as a decrease in income due to crisis or structural adjustment policies.

The findings revealed 66.5 % stated that there is extremely high tax and limited trade regulations even though informal traders have no information on how taxes are payed. Extremely high tax and limited trade regulations conditions were experienced by women at the border during their trade. The study indicated that high tax influenced negatively on the growth of women entrepreneurial businesses. This finding is similar with Wrigley-Asante (2017) who indicated that majority of women traders in the East African region experienced high taxation and trade regulations. Lack of information about policies promoting small scale trade and they usually paid a high number of undue 'informal' taxes. It is common practice of custom officials to take advantage of the women's ignorance and exploit them in various ways.

Based on the overall view of respondents on trade of commodities was at very high mean 4.32 which implies that the fact appears more that trade of commodities at high extent and standard deviation of 1.09 which implies that there are heterogeneity responses. The findings revealed that female are more engaged in informal traders than male and livestock product an agriculture are more focused in ICBT. These findings are related to the respondents who explained that the commodities traded in ICBT include beans, maize, cassava flour, onions and fruits. Males and females trade different commodities. More males trading maize, beans and cassava flour than women who mostly trade fruits and vegetables. These findings are contrary to the study by Tekere (2015), who found that the females informal cross border traders of Zimbabwe, mostly trade in crotchets, kitchenware, jewellers, sandals, dress materials and handbags. Additionally, the findings are contrary to the findings by Perberdy (2000), who found out that informal cross border trade between Mozambique and South Africa is mostly on processed commodities such as drinks, groceries, electrical goods and carpets just to mention a few. He further found that more men are involved in fruits and vegetables than women whereas in this study the findings show that more females are engaged in fruits and vegetables than males.

The study revealed that respondents agreed that cross border trade was their main source of income. Majority of the respondent indicated that high rates of retrenchment in Urban centers caused more people to be involved in ICBT. ICBT was attractive because its dynamic to accommodate all possible interested parties. Respondents agreed that due to low chances for formal employment, many youths have opted or ICBT hence leading to its growth. The study indicated that there was limited access to credit facilities. Respondents differed with the statement that there was limited access to credit facility. This was in agreement with Moore *et al.*, (2015) who indicated that women traders face specific difficulties from having the lowest levels of start-up capital to they generally trade goods which generate the lowest levels of profit and there was limited access to credit facilities and information on market opportunities.

The findings indicate that the overall view of respondents on of livelihood improvement of informal traders was at very high mean 4.38 which implies that there is strong evidence of existing fact that of livelihood improvement of informal traders at very high extent and standard deviation of 0.99 which implies that there is a heterogeneity response. People who engaged in ICBT has increased their livelihood where the majority of respondents before ICBT their income was below 5,000 whereas after ICBT their income has increased.

5. Conclusion

The study aims at assessing the impact of Informal Cross Border Trade on Livelihoods; a case of Rubavu District; after analyzing data, the following conclusions are drawn:

Based on the findings of this study, the study concluded that there is positive effect on ICBT towards livelihoods improvement of informal trading in Rubavu District where the variation in livelihoods of its beneficiaries was due to changes in policy and legal framework, taxation policy, trade commodities and marketing strategies. Extremely high tax and limited trade regulations conditions were experienced by women at the border during their trade. The study indicated that high tax influenced negatively on the growth of people entrepreneurial businesses. Taxation policy is the most contribute to livelihoods of informal traders in Rubavu District compared to their intervention where an increase of one unit in taxation policy contributes to 0.587 units in livelihoods of informal traders. This implies that informal traders financially improved after joining ICBT. Respondents agreed that majority of the traders relied on cross border trade as their main source of income. This provided them with income which they used in sustaining their lives. The relationship between ICBT and livelihood improvement in Rubavu District was assessed and the findings show the results indicate that there is significant high positive correlation between taxation policy and livelihoods of informal traders in Rubavu District. The study indicated that poor information available on market opportunities for competitive market edge negatively influenced growth of entrepreneurial businesses through ICBT. The researcher suggested that Lacked information about policies promoting small scale trade and they usually paid a high number of informal taxes. It is common practice of custom officials to take advantage of the informal traders' ignorance and exploit them in various ways. If 72.3% of respondents stated that there is high cost of registering small business, the government should reduce taxes and make it easy for ICBT to meet the government rules and regulations.

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