# Impact of Cross-Border Trade on Community Institution Changes in the Border Area of Oekusi District

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**Abstract:**
Cross-border trade is categorized as international trade but its approach relies on government policy. Cross-border trade in communities in the border region of Timor Tengah Utara district and district of Oekusi of Timor Leste due to the social capital, and institutional change.The purpose of this study was to determine the impact of cross-border trade on institutional change. This research was conducted in the border regionby involving traders. The results of data analysis using smartPLS show that cross-border trade has no direct impact on institutional change, and will change when mediated by ease of accessibility. The accessibility of the community will facilitate trade between communities due to the proximity of the settlement, the availability of transportation and the topography of the area which is only limited by highways, gardens and tributaries. Factors of ease of access cause changes in institutions through changing community behavior, patterns of interaction with government pushes to provide ease of regulation.

**Keywords:**Cross-Border Trade, Accessibility, Social Capital, Institutional Change.

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## 1. Introduction

International trade is a trade relationship between countries carried out by the public, the private sector, and the government. Cross-border trade is categorized as international trade but its approach uses a pattern that is built on government policy. Factors of local wisdom, community psychology, kinship factors, and the existence of history are used as the basis for the government's consideration to issue policies.

After East Timor's independence as a sovereign country, the value of the location of the border region has shifted to become strategic. The border area is the frontline in making a positive impact on the community and surrounding area. From a political perspective, the border region is a display of achievements in the development of good governance management indicators. From an economic standpoint, the border region provides positive expectations for the regional economy because it is a strategic area of mobilization of all resources that creates added value for the individual and regional economy. Economic activity is carried out with export-import and cross-border trading activities. Trade relations are characterized as mobilizing resources in the border region unavoidably from illegal approaches that violate the law. To overcome such unfavorable conditions, one way that can be done by the government on the Timor Leste border is by utilizing its local potential through legal trade patterns.

The attention of government development in border areas is actively carried out with a building

program from the edge known as "nawacita". The government's focus with the provision of infrastructure in the border region provides space for openness of isolation between regions (transportation and lighting) to the people's access behavior. The positive impact of border communities is to utilize these facilities and infrastructure to improve economic life with cross-border trading activities.

Timor Tengah Utara District in the NTT-Indonesia province and the Oecution distric is an area of the country of Timor Leste. Oekusi Distric is an enclave area between the region of East Nusa Tenggara. The District of TTU is one of the districts which directly borders land with Timor Leste, specifically the district of Oekusi. The border line of the two countries as a whole along Timor Island is approximately 279 (two hundred seventy nine) kilometers.The District of Timor Tengah Utara is bordered by Oekusi district with a length of 115 km (one hundred fifteen kilometers) and is dominated by 6 (six) sub-districts and 40 (forty) villages and sub-district.Historically and there was an emotional connection, in fact the people of the two countries in the border region still had historical ties and close kinship. This emotional relationship is not eroded by differences in political choices. Since East Timor chose to be an independent country, the political situation, security and economic life experienced shocks. Especially in the economic field, the need to fulfill the basic needs of the community is not available in the local area. The border area then became the best choice.

Cross-border trade is carried out by communities along the border line through freight forwarding activities, opening trade businesses (shops) along the border, selling by moving markets on the border, and money changer. These activities can provide a change in the economy of society when compared to previous economic life. The smooth flow of cross-border trading activities is caused by factors of accessibility and the very high strength of community social capital. According to Bustami (2012), the complexity of the needs of border communities undermines the barrier between countries by carrying out cross-border trade activities.

Accessibility is the degree of ease achieved by the community in achieving the desires of the people in the border region in conducting trade relations. Accessibility factors are influenced by the proximity of community settlements, availability of transportation equipment, travel time. According to Inkong (2012), high or low accessibility is seen from the many available network systems. The more accessibility the younger the community makes relations.

The strength of the social capital of the community in the border region is caused by the high level of public trust, having networking which is accessed through kinship nodes, accessibility, closeness to the settlement, emotional closeness, and so on. The strength of other social capital is norms built through agreements of customary border communities, similarities in culture, religion, and other community habits. According to Yustika (2012), configuration changes among economic actors will spur institutional change and are designed to regulate economic activities.

The purpose of this study is to see the impact of cross-border trade on changes in community institutions in the border region. Cross-border trade is carried out with a traditional approach by trading the trade products on the border which has an impact on institutional changes both internally and externally. Internal factors originate from the community in the form of behavioral changes and interaction patterns in relations and from outside because of government policies making it easier for people to trade.

## 1. LITERATURE REVIEW

In economic development, the economy of a region requires a basic theory as a reference for regional development. The export base theory is first raised as the basis for economic activities related to the development of regional territories. This theory explains that the growth and development of a region is a function of the growth and development of the activity of export base.

Regional economic development is an area that in its development has productive resources, a strategic position and has implications for regional economic development (Sun'an, and Senuk,

2015). The area in this concept is space that has an integrated geographical entity which is not determined by the basis of administration and is divided into several regional functions. This means that potential economic growth has different growth accelerations and can be developed effectively. The development of border areas has a positive impact on the economic growth of the surrounding area or the area behind it (hinterland) through civilization of the base sector or subsector as a driver of the regional economy and economic linkages between regions (Kuncoro, 2014; Ahmad & Ahmad, 2018). The main objective is to develop the mainstay of the regional economy to accelerate development in the region by optimally directing all potential.

Regional economic development is an area that in its development has productive resources, a strategic position and has implications for regional economic development (Sun'an, and Senuk, 2015). The area in this concept is space that has an integrated geographical entity which is not determined by the basis of administration and is divided into several regional functions. This means that potential economic growth has different growth accelerations and can be developed effectively. Policy is a very important dimension, considering its position as a determinant of what is to be done, while what will be done must be based on certain problems, needs, or aspirations. If the policy is decided without any real problems, needs or aspirations and of course it cannot be based on the problems or needs of certain parties to fulfill their interests.

Bustami (2012), said that globalization has eliminated boundaries between countries but replaced them with cross-border trade. Increasing the flow of trade both on the island and between islands in addition to having a positive impact on improving merchant welfare also has an impact on the increase in regional income through tax and retribution. The phenomenon that has developed so far especially the undisputed border region is the large number of commodities traded informally. The flow of informal trade in the border region has a number of complex challenges and problems that are different from the trade in non-border areas so that government involvement and various elements are needed.

Titeca et al (2012), who conducted research on Informal Cross-Border Trade In The Great Lake Region, found that cross-border trade was carried out between African countries namely Rwanda, Uganda, and Burundi in the dominant border areas of trade informally. The state legalizes the practice but is only allowed for small traders. The small traders are not registered as exporters in related institutions in the government and do not pay income tax, but they are only allowed to pay contributions out of the entry of goods in accordance with documented rules. In addition, goods crossed between countries are food items with a value of less than 100 US dollars (one hundred US dollars). The intention of the government is to legalize small entrepreneurs because of the assumption that the informal trade activities are limited to meeting basic needs and improving their welfare.

Ola Ama et al (2013), conducting trade research in the border of Botswana (Africa) on the Profitability of the informal cross-border trade, found that traded goods are official production goods. But in the trade process it seeks to avoid government regulations to pay for trade duties including people who cross the border. Even so, cross-border trade can also be done through official channels but the practice is to minimize customs control by paying based on invoices, namely reporting lower quantities of goods weight, classification and type of goods to pay lower duties. Even so the practice is negative for general state revenue, but has a positive impact on individuals, families or their relatives who participate in trade.Cross-border trade in Botswana contributes to food security, job creation, provision of income and poverty alleviation, completing formal commercial networks and contributing to opening up new markets for domestic products. Research shows that Informal Cross-Border Trade (ICBT) allows traders to earn decent income for themselves and their families and has a multiplier effect on education and health, not only for themselves but for the surrounding environment.

Social capital is the power of the community in making relations both social relations and economic value relations. According to Birdsall (in Meyerson, 1994), social capital is a source of

power produced by humans in social life. In the community itself there are a number of potentials and strengths which if utilized properly will contribute positively to development. Social capital itself according to Collier (1998), is a collection of active relationships between humans; trust, mutual understanding and similarity in values and behaviors that bind members in a network and community that allows collaboration. Fukuyama (1995), said that social capital is a series of informal values or norms that are shared among members of a community group that enables cooperation between them. Fukuyama's opinion is in line with the opinion of Coleman (1986) that social capital is the ability of the community to work together to achieve common goals in various groups and organizations. Social capital refers to the characteristics of social organizations in the form of horizontal networks which contain norms that facilitate coordination, cooperation, and control each other whose benefits can be felt with members of the organization (Putnam, 1995). The concept of social capital is very diverse but generally social capital is interpreted as an institution, relationship, attitude and value that facilitates interaction between individuals, between groups of people in order to increase welfare through economic development and community development itself (Iyer, 2005).

From these views, social capital is actually a series of informal values or norms, such as mutual trust, mutual understanding, shared values and behavior, which are shared among members of a community group that enables cooperation to achieve common goals.

The strength factor of the social capital of the community is because of the accessibility that makes the relationship worse. This ease can naturally occur and the creative power can take advantage of technological advances to accelerate access such as information systems, transportation and other infrastructure. Accessibility according to the large Indonesian dictionary is the degree of ease achieved in an object, service or environment. In another sense that accessibility is a measure of ease of location to be reached from other locations through the transportation system. Measures of affordability or accessibility include

the ease of time, cost, and effort in making transfers. The ease of access is implemented in buildings, the environment and other public facilities.

Jhon Black (2013), accessibility is a measure of convenience or ease of achieving a location and its relationship between one and another, easy or difficult the location is achieved through transportation. Accessibility is a broad and flexible concept. Accessibility is a matter of time and also depends on the attractiveness and identity of the travel route. Furthermore, according to Inkong (2012), one of the variables that can be stated is whether the level of accessibility is high or low which can be seen from the number of network systems available in the area. The more network systems available in the area, the easier the accessibility will be, and vice versa, the lower the level of accessibility obtained, the more difficult the area will be reached from other regions. In Ola Ama (2013) it is said that the factors that affect the low function of accessibility are topography, because it can be a barrier or facility to hold interactions in an area.

Inkong (2012), indicators of accessibility can simply be expressed by distance. If a place is close to another place, it is said that accessibility between the two places is high. Conversely, if the accessibility is far between the two, the indicator is low. In addition to distance and time, costs are also some indicators of accessibility. If between the two places has a short travel time, it can be said that the two places have high accessibility. Costs can also indicate the level of accessibility. Costs here can be combined costs that combine time and cost as a measure for transportation relations.

Relationships between people who are long established will create changes that are natural and by other parties who have power. Institution is understood to not always be static, but dynamic in accordance with economic interactions that bring together interests. Institutional dynamism is also caused by changes in the values and culture of society along with changes in the situation and conditions of the community itself. In such conditions according to Yustika (2012), institutional change has two dimensions; First, changes in configuration between economic actors

will trigger institutional change.In this approach, institutional change is considered as the impact of changes (configuration interests) of economic actors. Second, institutional changes are deliberately designed to influence and regulate economic activities. In this position, institutions are actively placed as instruments to regulate economic activities. From the two spectrums, it can be believed that institutional change that is as important as the institutional design itself and in this case requires a process of institutional change as a guiding process.

Institutional change by Manig (1991) explained that institutional change encourages changes in the conditions of new adjustments needed through external factors. Thus institutional change is a process of permanent transformation from development. Therefore the aim of institutional change is to internalize greater productivity potential than improving the use of resources which then simultaneously creates new balance.

With this understanding, institutional change is considered a continuous process that aims to improve the quality of interaction (economy) between actors. This shows that the process of permanent transformation is the most important part of institutional change. The main base of permanent transformation is the realization that social aspects continue to develop in response to changes in certain fields, especially the economy and other fields.

## 2. RESEARCH METHODOLOGY

The population in this study is border communities who work as traders in the border market in four sub-districts that directly border. The total population in this study is 113 people who have a varied distribution.

The sampling technique in this study is Simple random sampling which is a random sampling technique from the population regardless of the strata in the population, using Slovin Formula as follows:

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

Description :
n        = number of samples
N        = number of population
e        = prepatation (5 percent with 95 percent confidence level)

Based on the sampling technique with a total population of 113. From the calculation results, the number of samples in this study were 88 people. The next step, the number of samples is 88 people, random sampling and taken from each border market or random entrance and lottery methods. Sampling according to the sub-district uses the following formula:

$$ni = \frac{Ni}{N}xn$$

Description :
ni        = number of samples according to sub-district
n        = total number of samples
Ni        = number of population according to sub-district
N        = total population

Based on the technique of the formula above, the composition of the big sample in each sub-district can be obtained, as in the following table;

TABLE 1

Number of Samples by Border Market or Entrance

| No | Border ket | District | Number of Population(orang) | Number of Respondents (People) |
|---|---|---|---|---|
| 1 | Wini | Insana Utara | 30 | 24 |
| 2 | Saitau | Mutis | 21 | 21 |
| 3 | Napan | Biko mi Utara | 39 | 30 |
| 4 | Haume ni Ana | Biko mi Nilula t | 23 | 18 |
| Total | | | 113 | 88 |

Source: Primary Data, processed. 2019.

The analysis tool that will be used is the SmartPLS (Partial Least Square) analysis. SmartPLS analysis is an alternative method of solving complex multilevel models that do not require a large number of samples. In addition, there are also some advantages of smartPLS, which among them will have optimal implications in the accuracy of predictions. The smartPLS method is a powerful analytical method because it

does not assume the scale of data measurement and can also be used to confirm the theory (Abdillah and Hartono, 2015).

Data analysis and structural equation modeling using PLS software, are:

Designing a Structural Model (*Inner Model*)

Inner Model or Structural Model describes the relationship between latent variables based on substantive theory. The design of the Structural Model describes the relationship between latent variables based on the formulation of the problem.

Designing a Measurement Model (*Outer Model*)

The Outer Model defines how each indicator block is related to its latent variables. The design of the Measurement Model determines the indicator character of each latent variable. The latent variables in this study are social capital, cross-border trade, and institutional change.

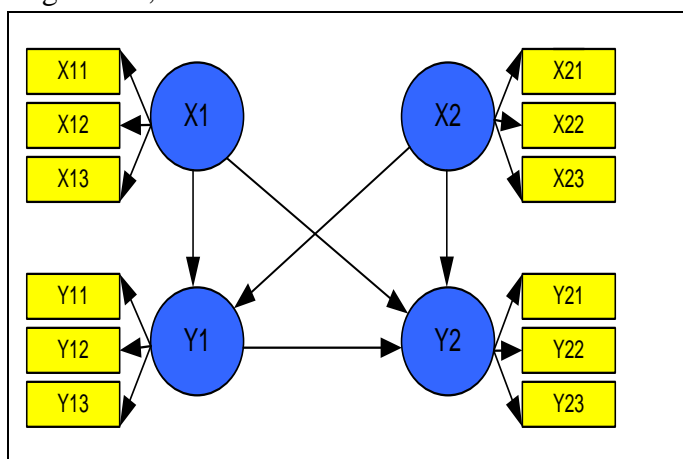The relationship between indicators and latent variables in this study is shown in the following figure 3.1;



Fig 1:Structural Model of Institutional Change.

Description:

| | | |
|---|---|---|
| X1 | : Cross-border trade |
| X11 | : Scarce Goods |
| X12 | : market expansion |
| X13 | : Profit |
| X2 | : Social Capital |
| X21 | : Trust |
| X22 | *:* Mutual understanding |
| X23 | : Shared value |
| Y1 | :Accessibility |
| Y11 | : Location of settlement |
| Y12 | : Transportation |
| Y13 | : Region topography |
| Y2 | : Institutional change |

Y21     : Behavior
Y22     : Interaction Patterns
Y23     : Regulation

The *outer model* defines how each indicator block is related to its latent variables. Conversion of Path Charts to Equation Systems

Estimation: Weight, Path Coefficient, and Loading

The parameter estimation method in PLS is the least square method. The calculation process is done by iteration, where the iteration will stop if the convergence condition has been reached. Estimating parameters in PLS includes 3 things, namely:

Weightestimate used to calculate latent variable data.

Path estimate which connects latent variables and loading estimation between latent variables and their indicators.

Means and location parameters (regression constant, intercept) for indicators and latent variables.

Evaluation: *Goodness of Fit*

The Goodness of Fit Model is measured using $R^2$ dependent latent variables with the same interpretation as regression.

## 3. DISCUSSION

In this study the direct influence in this research model is shown by the value of the path coefficient with all arrows with one end, while indirect effects can occur through the role of intermediate (intervening) variables.The total effect between variables can be seen through path coefficients and total output from smartPLS output. From the results of data processing using smartPLS 3.0 for relationships between variables to see the relationship between constructs in this study can be seen in the path coefficient value shown in the following figure 2;
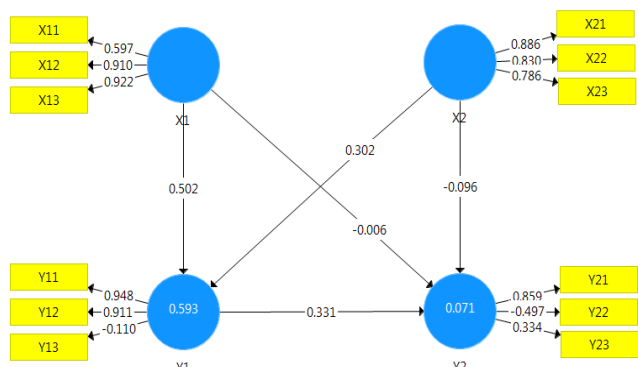
Fig 2: Value of Outor Loading Between Variables

Furthermore, for direct relations it aims to analyze the direct influence between construct variables. The direct effect reflects the direct relationship between latent variables and in the smartPLS output in the path coeffiients table. More clearly the results of the analysis are shown in Table 3.1 below;

TABLE 3.1
Direct Relationship (Path Coefficients)

|  | X1 (Cross-border trade) | X2 (Social Capital) | Y1 (Accessibility) | Y2 (Institutional Change) |
|---|---|---|---|---|
| X1 (Cross-border trade) |  |  | 0,502 | -0,006 |
| X2 (Social Capital) |  |  | 0,302 | -0,096 |
| Y1 (Accessibility) |  |  |  | 0,331 |
| Y2 (Institutional Change) |  |  |  |  |

Source: Data proceed of SmartPLS

The results showed that the outor loading value between cross-border trade variables on accessibility was positive, which was 0.502, but for institutional change was minus, namely -0.006. Cross-border trade activities carried out by border communities are caused by factors of ease of access. The ease of obtaining goods and services in the border region through the market is very large due to the close proximity of the location of the settlement between the two countries and the relatively fast distance. Besides that,

transportation is available at a low cost and various choices of both cars and motorcycle services (Ojek).This makes the community have no doubts about conducting business relations. As stated by Basri (2011), that economic activity at the border will encourage economic growth in the surrounding area or the area behind it (hinterland) through the culturalization of the sector or base sub-sector. While the indirect relationship can be seen in the following table;

TABLE 3.2
Indirect Effects

|  | X1 | X2 | Y1 | Y2 |
|---|---|---|---|---|
| X1 (Cross-border Trade) |  |  |  | 0,166 |
| X2 (Social Capital) |  |  |  | 0,100 |
| Y1 (Accessibility) |  |  |  |  |
| Y2 (Institutional Change) |  |  |  |  |

Source: Data proceed of SmartPLS

The indirect relationship of cross-border trade and social capital to institutional change through accessibility is positive. This illustrates that the role of accessibility is a determining factor for the community to conduct social relations and business relations. Emotional proximity factors, distance of settlement, availability of infrastructure, means of transportation that encourage people to make relationships.

Furthermore, the evaluation of the structural model (inner model) is a test between latent variables (constructs) to determine the relationship between constructs by looking at the value of $R^2$ as illustrated in the following table;

TABLE 3.2 - R Square Value For Constructions

|  | R Square |
|---|---|
| Y1 (accessibility) | 0,593 |
| Y2 (institutional change) | 0,071 |

Source: Data proceed of SmartPLS

The results show that the accessibility construct in the inner model is said to be moderate, and the accessibility construct is explained by cross-border trade and social capital by 59.3 percent, while the remaining 40.7 percent is explained by other variables. While the value of the construct of institutional change is said to be low because it is explained by the construct of cross-border trade, social capital and accessibility by 7.1 percent and the remaining 92.9 percent by other variables outside the model.

Even so, the positive relationship between the relationship between cross-border trade and accessibility does not occur in relation to institutional change. This is because cross-border trade is not affected by changes in regulations issued by the government with various approaches to restrict the mobilization of people to trade. Behavior and patterns of community interaction are not affected by institutional changes carried out by the government. Cross-border trade will be positive for institutional change because of the ease of access of the community in conducting business relations in the border regions of Indonesia and Timor Leste.

The strength of the social capital of the community to do a very positive relationship is influenced by accessibility or convenience factors obtained. The closeness of community settlements, the availability of low-cost transportation equipment allows mobilizing the community to create trust in establishing social and business relations. The results of the analysis show that the relationship between social capital and accessibility is 0.302. However, the relationship between social capital and institutional change is negative at -0.096. This illustrates that the power of social capital is not affected by institutional changes, namely changes in behavior, patterns of interaction and government regulation.

Accessibility that is determined by the proximity of the location of the settlement between the community is supported by the availability of various means of transportation and at a low cost which can facilitate changes in institutions in the community. The behavior of the community changes to leave the old profession, the majority of which is farming, then becoming cross-border

traders. Likewise with the pattern of community interaction which originally changed social orientation and kinship in business interactions that brought profit. All activities facilitate access and institutional change because government participation facilitates and protects the community in the form of regulations. According to Yustika (2012), institutional change has two dimensions; First, changes in configuration between economic actors will trigger institutional change. Second, institutional changes are deliberately designed to influence and regulate economic activities. In this position, institutions are actively placed as instruments to regulate economic activities.

## 4. CONCLUSION

Cross-border trade is a new opportunity for the people in the borders of Timor Tengah Utara district and the district of Oekusi Timor Leste to meet their needs and make a profit. Trade occurs because of the strength of social capital and the accessibility factors that are felt by the community. However, the impact of cross-border trade does not directly affect changes in community institutions characterized by patterns of behavior, patterns of interaction and regulatory factors. The impact of cross trade on institutional change is due to ease of accessibility; the proximity of community settlements, availability of transportation.

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