

FACTORS AFFECTING THE EFFICIENCY OF ECONOMIC LINKAGE BETWEEN ENTERPRISES AND FARMERS IN THE SOUTHERN REGION, VIETNAM

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Abstract

Preferential policies launched and implemented from 2002 is to encourage and promote linkages between businesses and farmers in Vietnam but the effect is not as potential as expected. While the impact of international economic integration requires businesses and farmers as well as other stakeholders in the value chain of agricultural production must be interconnected in order to improve competitiveness, efficiency social that contribute to the development of sustainable agriculture. This study based on multivariable regression standard which analyzes factors affecting the efficiency cooperation between businesses – farmers in Vietnam. The research results show that there are both indirect and direct factors affecting the efficiency linkage. Firstly, the indirect factors include (i) Economic efficiency of farmers, (ii) Environment policy – institutions, (iii) The commitment and reliance, (iv) The sharing of benefits and risks, (v) Management skills and business capacity of enterprises. Secondly, The direct factor is the Result linkage.

Key word: Affiliate between enterprises and farmers; Sustainable agricultural development; Distribution system; Vietnam;

1. Introduction

The linkage between farmers and enterprises helps to solve the problem input of business, the output of farmer, reduce production costs, lower costs, and increase income. Contributing to change eliminating habits, psychological small producers, producing formation thinking style market, the application of science and technology in production, and meet the requirements of industrialization and modernization of the nation. The policy have been launched from 2002 according to Decision No.80/2002/QĐ-TTg; Decision No.124/2004/QĐ-TTg approving the master plan for development of agricultural production by 2020 and vision to

2030 and Decision No.62/2013/QĐ-TTg on policies to encourage cooperation and development, production linkages associated with the consumption of agricultural products. These policies show that the government cares for agricultural development and consider agriculture as pedestals for the economy in the process of growth and development as well as associated undertakings in agricultural policy plays key role. However effective linkages in agriculture in the Southeast region in particular and Vietnam in general is not high, not injected with the potential as well. The Southeast region belongs to the South key economic Zone of Vietnam with 6 provinces and cities including Binh Duong, Ba Ria - Vung Tau, Binh Phuoc, Dong Nai, Tay Ninh and Ho Chi Minh City. Although the economic structure of the region has tended to shift towards increasing the proportion of industry and services sector while decreasing the proportion of the agricultural sector, but the role of agriculture for growth of the local, regional still very important, especially in improving the economic efficiency of enterprises and households.

Based on the basis of qualitative and quantitative research methods and the primary data collected from the farmers engaging in agricultural production linkage on the provinces of the Southeast region. This study mainly focuses on clarifying factors which affects the economic cooperation in agriculture production in the Southeast of Vietnam. Results of the study will help to clarify the barriers to improving the effectiveness of the economic linkages between enterprises and farmer with the appropriate policies for speeding up, improve the economic – social efficiency and sustainable agricultural development. To continue this paper, Section 2 states the background of the present study which includes the literature review and the research hypotheses, Section 3 explains the methods and Section 4 presents the results and discussion of the research.

2. Background and research models

2.1 The theory of economic linkages between enterprises and farmers in agricultural production

2.1.1 The concept and the nature of the economic linkages between enterprises and farmers

There are many different views on economic integration. Béla Balassa (1961) emphasizes that economic integration, coherently understood, was the integration with institutional nature of economic organizations and economies. Linkages economy is the economic relations between organizations, departments, local authorities and economic units. Linkages are both forms of economic organization of production and the management mechanism (Tran Duc Thinh, 1984). Hoang Kim Giao (1989) with an alternative approach, stated that the economic linkages and economic relation are not characterized all economic relations, but only the economic relations that take place in the form of organization of production. Yu Ming Men (1993) argued that economic integration is the coordination relations between businesses and other business entities (cited by Ho Que Hau, 2012). Economic linkages are forms or manifestations of coordination between members linkages not only perform any

economic relations which aims together and more cohesive, go to System to achieve the level inextricably linkages, stable, permanent, lasting through the agreement, the contract between the parties before and intermediaries are going to merge, combine, merge, forming a new business with larger scale and in which the nature of economic integration is the process of socialization of production (Duong Ba Phuong, 1995). Davis. W. Pearce (1999) said that economic integration is the situation where the different areas of the economy, usually the industrial sector and agricultural activities together an effective way results and interdependence, as an element of the development process. This condition is often accompanied by sustained economic growth (cited by Ho Que Hau, 2012). Key Hay, N. and Runsten, D. (1999) recognized the nature of economic cooperation is an economic institutions is any structure or mechanism of social order and regulate behavior of a set of individuals in a given community, there is a mechanism of rules designed to bring about a certain result (Vo Duy Khuong, 2014).

Although there are many different views, it can be seen that economic integration is a form of cooperation and coordinated activities of economic units voluntarily undertaken to promote production and business development in favor in the framework of state law. The goal is to create economic relationships and stability through economic contracts or regulations to conduct operations and production divisions, exploiting the potential of the units involved in linkage or to together and create a common market, protect benefits for each other.

Economic linkages are very popular in the economic sectors including agriculture sector. In agriculture forms of linkage popularity and is the most important linkage between businesses and farmers in coordinating the production and consumption of agricultural products. Tran Van Hieu (2003, 2004) suggested that the linkage between farmers and enterprises that process together, intrusion, mutual coordination between farmers and businesses in the form of voluntary rural locality economic contracts to promote the intrinsic capacity of actors linkages ensure reproducible process to expand the breadth and depth, stability improving the lives of farmers and performance of the state-owned enterprises. According to Ho Que Hau (2012) suggest that the economic integration between enterprises and farmers is part of economic integration in the national economic in which parties are enterprises and farmers, implementing a vertical integration between agriculture and industry, to stabilize and improve economic efficiency (Dinh Phi Ho, 2003).

Although there are many concepts, different views on economic cooperation in general and economic linkages between businesses and farmers in agricultural production in particular, but according to the approach of this study the nature of the linkage between farmers and businesses primarily as part of the economic linkages that there appeared an intrusive process, together, collaboration, mutual cooperation between farmers and businesses. They come together in the spirit of voluntary to find common ground here is that space in rural areas through forms of economic cooperation in accordance with the policy of the party - the state for the purpose of promoting out the possibility of linkage holders, the production process to ensure stable and sustainable improve, enhance the quality of life of farmers and produce economic efficiency of enterprises.

2.1.2 Results of the linkages implementation between enterprises and farmers

The results of associates are expressed in both quantity and quality aspects: (a) The number of linkages is performed criteria reflect, scale implementation linkage, reflecting the results of the real volume the target linkage in the production, investment, procurement of production, collection and investment between farmers and businesses; (b) perform linkage quality criterion shows the results in terms of quality, strict level, depth, sustainability of the implementation of the linkage between farmers and businesses. Criteria for implementing quality linkages are shown in a number of indicators can be calculated within a household, a local (Ho Que Hau, 2012).

2.1.3 Effectiveness of cooperation implementation between enterprises and farmers

Results of cooperation implementation haven't reflected the effective cooperation implementation process between enterprises and farmers. To assess the right quality of cooperation implementation we should be based on the criteria of effectiveness, it is the effective economics and effective socio-economic (Ho Que Hau, 2012): (i) economic efficiency criteria is to evaluate cost effective linkage between farmers and enterprises are expressed by the level or growth rate of corporate profits and income of farmers after the linkage compared before executing. It is possible expressed through turnover, profits of both enterprises and farmers; (ii) The criteria of economic efficiency - society is to evaluate the effectiveness of cooperation implementation between farmers and enterprises. It is represented an indirect positive effect results in creating process of implementing linkage and solving economic - social problems.

2.2 The econometric model of factors affecting the results and effectiveness of economic cooperation between enterprises and farmers

Based on the research result in the world and Vietnam including Ho Que Hau (2012, 2013), Key and Runsten (1999), Parasuraman et al (1988), Sykuta and Parcell (2003), Phil Simmons (2002), Nguyen Thi Bich Hong (2008), Bui Thi Hoa (2009), Bao Trung (2009), Nguyen Thi Ngoc Mai (2010), Le Thi Thanh (2011), Tran Minh Vinh and Pham Van Dinh (2014), Vu Duy Hung (2015) combined with the expert group discussions agricultural economy. The factors effecting to efficiency linkage between enterprise and farmers include (i) Economic efficiency of farmer, (ii) The commitment and reliance, (iii) The sharing of benefits and risks, (iv) Management skills and business capacity of the enterprises, (v) The policy environment - institutions, (vi) Reasonable purchase price. Results of economic cooperation affect the effective linkages between enterprises and farmers in agricultural production.

- According to Ho Que Hau (2013) the economic efficiency of farmer households is the factor affecting directly the results of linkages between farmers and enterprises (Dinh Phi Ho, 2003).

Hypothesis H1: In condition of agricultural production in the Southeast region - Vietnam, the economic efficiency of farmer households impacts positively on the results of linkages.

- According to Ho Que Hau (2013), Parasuraman et al (1988), Bui Thi Hoa (2009), Nguyen Thi Ngoc Mai (2010); Le Thi Thanh (2011) the quality of the business activities in which the reliability of enterprises have great influence on satisfaction of farmers and the results of linkages

Hypothesis H2: In condition of agricultural production in the Southeast region - Vietnam, the commitment and reliance of farmers - enterprises impact positively on the results of linkages.

- According to Ho Que Hau (2013), Sykuta and Parcell (2003), Phil Simmons (2002), Bui Thi Hoa (2009), Le Thi Thanh (2011), Nguyen Thi Ngoc Mai (2010) sharing the benefits, decision-making powers and risks, enterprises have invested capital for farmers, enterprise support disaster assistance to farmers, crop failures are the factors that helped bring about the success of the linkages.

Hypothesis H3: In condition of agricultural production in the Southeast region - Vietnam, sharing the benefits and risk impacts positively on the results of linkage.

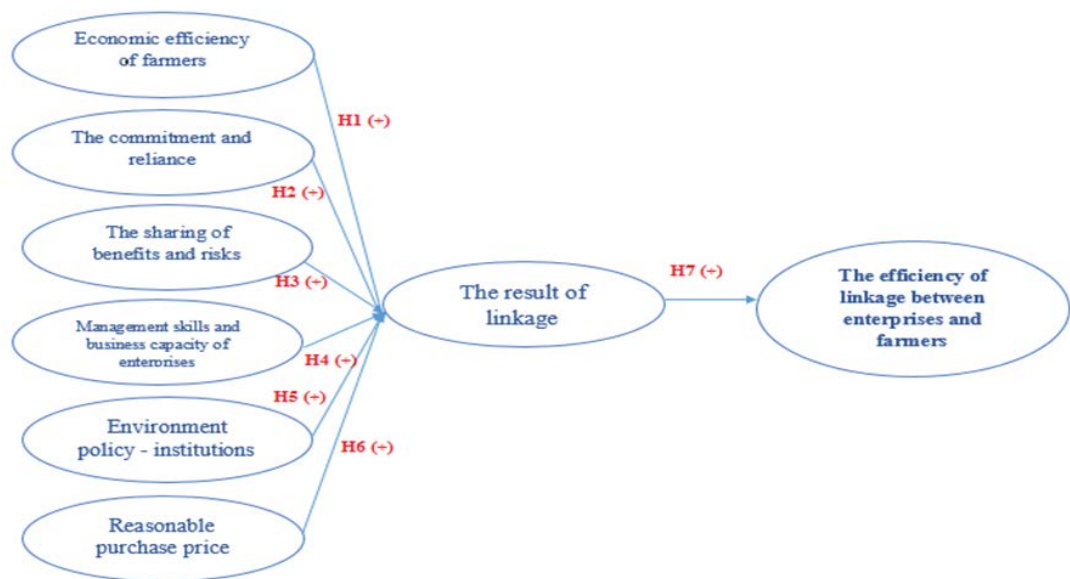


Figure 1: Conceptual Model

- According to Ho Que Hau (2013), Parasuraman et al (1988), Tran Minh Vinh and Pham Van Dinh (2014), Vu Duy Hung (2015) the operation of enterprises linkage with the farmer is actually active production services. So the quality of the business activities in which

the credibility of the enterprises, staff quality and attention, understanding of enterprises have a great influence on the satisfaction of farmers.

Hypothesis H4: In condition of agricultural production in the Southeast region - Vietnam, management skills and business capacity of enterprise impact positively on the results of linkages.

- According to Key and Runsten (1999), Bui Thi Hoa (2009), Nguyễn Thị Ngọc Mai (2010), Tran Minh Vinh, Pham Van Dinh (2014), Vu Duy Hung (2015) legal infrastructure is often unreliable in many developing countries makes enterprises have troubles in using legal action against local farmers to ensure the success of the linkage. In order to limit opportunistic behavior affects the results of linkage, we need to build the effective legal system and effective (Bao Trung, 2008).

Hypothesis H5: In condition of agricultural production in the Southeast region - Vietnam, the policy environment - Institutions impacts positively enterprises and farmers.

- According to Ho Que Hau (2013), Nguyen Thi Ngoc Mai (2010) a reasonable purchase price is the factor affects directly the results of linkage between farmers and enterprises (Dinh Phi Ho, 2003).

Hypothesis H6: In condition of agricultural production in the Southeast region -Vietnam, a reasonable purchase price for farmers impacts positively on the results of linkage.

- Ho Que Hau (2012, 2013) suggests that in order to achieve the effective of linkages, we have to have the results of linkage and it is expressed through the quantity and quality of linkages (Dinh Phi Ho, 2003).

Hypothesis H7: In condition of agricultural production in the Southeast region - Vietnam, the results of linkage impacts positively on the effective linkages between enterprises and farmers

3. Research Design and Scale measurement for study concepts, tools for collecting research data

3.1 Research Design

The study was carried out in two stages: Preliminary study and formal study. The preliminary study was carried out through qualitative and preliminary quantitative research methods. Qualitative research is conducted by documents studying and un-structural interviewing deeply according to non-probability sampling method including staffs who are in charge of affiliate programs directly in the agricultural production in: Binh Hoa, Tan An, Thien Tan communes of Vinh Cuu district; Phu Vinh commune of Dinh Quan district (Dong Nai province); Tri Binh commune of Chau Thanh district, Phuoc Chi, Tan Binh commune of Trang Bang district (Tay Ninh province); An Nhut commune of Long Dien District (Ba Ria - Vung

Tau province); An Lac commune of Tan Uyen district (Binh Duong province); Experts from the New Rural Steering Committee of Dong Nai province, Lac Hong University, the University of Economics Ho Chi Minh City and University of Economics - Law (Vietnam National University, HCM) in September - October, 2014 at different time. The study results showed that after thirteen meetings with information saturation point is eight; theoretical framework, research models and the scale of the concept were complete.

The preliminary research was conducted with a test survey with a sample of 60 observations is the extension workers, farmers are directly in charge and participating in affiliate programs for agricultural quantitative production, that not participate in the interview above. The results showed that Cronbach's alpha coefficient achieved is at 86.8% for the scales show high reliability. Research is done formally by sending questionnaires, telephone directly and convenience sampling to the farmers in communes such as Binh Hoa, Tan An, Thien Tan communes of Vinh Cuu district, Phu Vinh commune of Dinh Quan (Dong Nai province); Tri Binh commune of Chau Thanh district, Phuoc Chi, Tan Binh commune of Trang Bang district (Tay Ninh province); An Nhut commune of Long Dien District (Ba Ria - Vung Tau province); An Lac commune of Tan Uyen district (Binh Duong province) during the period from 10 - 11/2014 at the different time. Selecting communes of each district and the province above is dependent on the level of convenience and where the affiliate program is being implemented. After data are cleaned and assess the normal distribution will be analyzed using structural equation modeling (SEM) by IBM® SPSS ® Amos to investigate the quality of scales, the appropriateness of the model and assessment the hypotheses of the relationship between the independent and dependent variables in the research model.

3.2 Scale measurement for study concepts, tools for collecting research data

The scales of studied concepts in the model included thirty eight observed variables measure for 8 studied concepts. The concept variables in the research model were measured by 5 point Likert scale with 1 - totally disagree with 5-strongly agree. Economic efficiency for the farmers include 5 items (HQKTND1 – HQKTND5); The commitment and the reliance include 4 items (CK1- CK4); The sharing of benefits and risks include 5 items (CS1 – CS5); The management skill and business capacity of the enterprises include 5 items (QLDN1- QLDN5); The environment policy - institutions include 5 items (MTCS1- MTCS5); Reasonable purchase price include 4 items (MGM1- MGM4); The result of linkage include 5 items (KQLK1- KQLK5) and The efficiency of linkage include 5 items (HQLK1- HQLK5).

The data of the research is the primary data which was directly collected by using interviewing questionnaire. The questionnaire include 3 main parts: the first one contains the evaluation to the efficiency of the cooperation between the enterprises with the farmers; the second part is investigating the factors that affect the efficiency of the cooperation and the last part is the general information about the interviewees.

4. Results and discussion

4.1 Description of the sample

Datasets are cleaned after 220 samples satisfied the conditions of factor analysis to explore the structure and linear model (Hoyle, 1995; Kline, 1998; Jackson, 2001, 2003; Hair, 2006, 2009). Characteristics of the sample are categorized by the authors into 6 groups: consisting of (i) Gender, (ii) People, (iii) Age, (iv) The number of years of schooling (years), (v) The number of years of farming experience (years) and (vi) The area agricultural land (m²). Specific characteristics of the sample as shown in Table 1 below:

Table 1: Characteristics of study sample

Variables	
Gender	Male = 83.2%; Female = 16,8%.
Age	20-39 = 17.72%; 40-49 = 40.91%; over 50 = 41.89%
The number of years of schooling (years)	3-6= 40.92% ;7-9=44.54%; 10-12=14.54%;
The number of years of farming experience (years)	10-20 = 15.9%; 21-30 = 44.54%; over 30 years =39.56%
The area agricultural land (m ²)	8.0000 – 10.000 =15.45%; 11.000 – 20.000 = 19.09%; 20.000 – 40.000 = 25.45%; over 40.000 = 40.01%

Source: Survey of the research team.

4.2 Inspection the quality of scales and research models

The quality of the first scale tested through Cronbach's alpha coefficient, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

The results of analysis to explore factors have 7 components are: six first-order subcontract, namely, (i) Economic efficiency of farmers, (ii) The commitment and reliance, (iii) The sharing of benefits and risks, (iv) Management skills and business capacity of the enterprise, (v) Environmental policy - institutions, (vi) The reasonable purchase price for farmers and one variables directly impact the efficiency of linkage between enterprises and farmers include (i) The result of linkage between enterprises and farmers is satisfied the terms and conditions of EFA, except for rejected variables by CK1 and QLDN3.

Table 2: Summarizes the results of testing scale

Latent Variables	Number of	The reliability	ρ_{vc}
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	Observed variance	Cronbach's Alpha	ρ_c	
The economic efficiency of the famers	5	0.821	0.832	0.505
The commitment and reliance	3	0.824	0.847	0.654
The sharing of benefits and risks	5	0.840	0.858	0.556
Management skills and business capacity of the enterprises	4	0.851	0.855	0.596
Environmental policy – Institutions	5	0.823	0.839	0.519
The reasonable purchase price for the farmers	4	0.857	0.864	0.617
<i>The result of linkage</i>	5	0.813	0.804	0.555
<i>The efficiency of the linkage</i>	5	0.835	0.837	0.511

Source: Survey of the research team.

Maximum Likelihood Estimation (MLE) is used for determining goodness of fit of the model. The estimation results confirmed that the model is sufficiently compatible with the data relatively indicators such as Chi-square = 1398.623, df = 565, p= 0.000 (<0.05) was still acceptable due to the large sample size, corrected Chi-square (Chi-square/df) reached 2.475, GFI = 0.749, TLI = 0.788, CFI = 0.810 (Chin & Todd, 1995; Segars & Grover, 1993) and RMESA = 0.082 (Taylor, Sharland, Cronin, & Bullard, 1993; Tho and Trang, 2008). PCLOSE indexes are greater than 0.5 (minimum is 0.663) showed that the model qualified reliability, discriminant validity and convergent validity (Anderson & Gerbing, 1988; Segars & Grover, 1993; Steenkamp & Van Trijp, 1991). The correlation coefficients of the concepts (factors) are less than 1 and have statistical significance (Steenkamp & Van Trijp, 1991). The concept of synthesis reliability satisfied ($\rho_c > 50\%$) and the variance of each factor extracted ($\rho_{vc} > 50\%$).

4.3 Hypothesis Testing

The estimation results show that theoretical models are quite consistent with market data: Chi-square = 1465.328; df = 571; Chi-square / df = 2.566 (Kettinger and Lee, 1995); GFI = 0.740, TLI = 0.775, CFI = 0.796 (Segar and Grover, 1993; Chin and Todd, 1995) and RMESA = 0.085 (Taylor, Sharland, Cronin and Bullard, 1993; Tho and Trang, 2008) and can be used to test the relationship has raised expectations and assumptions in the model.

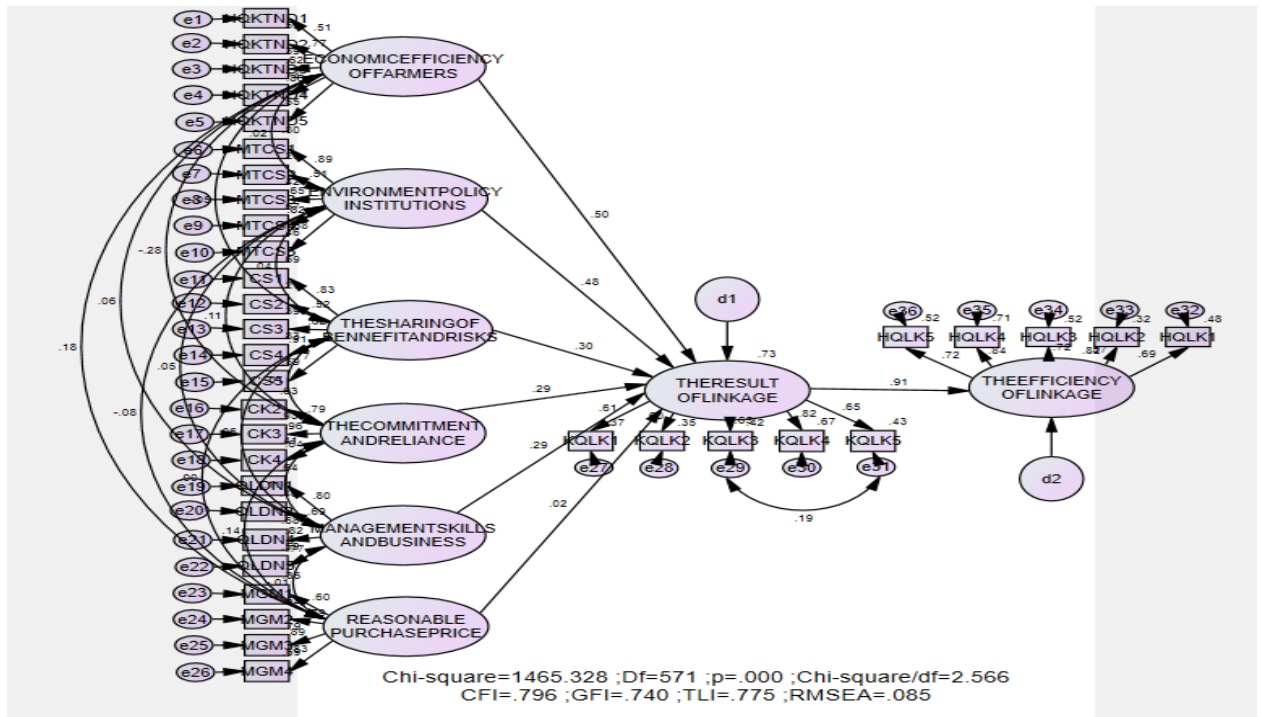


Figure 2: Structural equation modeling (standardized regression weights)

The test results of the assumptions in the model study showed that compared with original expectations, except for the impact of factors Reasonable purchase price has not been clearly shown ($\beta = 0.011$, $p_value = 0.680$) hence there is not enough sufficient evidence to accept or reject this hypothesis - this can be explained is due to the linkage between businesses and farmers to consume the output is not available in the Southeast, just represent at less than 5%. The other hypotheses are accepted in particular, namely, In the five factors affecting the results of linkage efficiency between enterprises and farmers, the impact of Economic efficiency of farmers are strongest ($\beta = 0.246$, $p_value = 0.000$), followed by Environmental policy - institutions ($\beta = 0.206$, $p_value = 0.000$), followed by The Commitment and reliance between businesses and farmers ($\beta = 0.143$, $p_value = 0.000$), followed by the impact of Sharing of benefits and risks ($\beta = 0.130$, $p_value = 0.000$), and finally the impact of factors Management skills and business capacity of the enterprise ($\beta = 0.128$, $p_value = 0.000$). The impact of factors Result of linkage on Efficiency of Linkage is very strong and clear ($\beta = 0.951$, $p_value = 0.000$). Results of research on the similarities with the research results of the authors such as (Bao Trung, 2009); Nguyen Thi Bich Hong (2008); Nguyen Thi Ngoc Mai (2010); Bui Thi Hoa (2009); Le Thi Thanh (2011); Dinh Phi Ho (2003); Ho Que Hau (2012, 2013); Key and Runsten (1999); Parasuraman et al (1988); Sykuta and Parcell (2003); carried out earlier. Thus, theoretical models and research hypotheses were tested; the results will be used as an important basis for policy recommendations related to the efficiency linkage between enterprise and farmers in the southern region, Viet Nam.

In this study, the authors repeated 250 times with Bootstrap method to test the stability of the estimates in model. The estimation results show that the difference from the initial

estimate by ML method does not have a huge difference compared to the estimates by bootstrap methods. All the difference in the estimates is not statistically significant. So the model estimates of reliability are guaranteed for the verification of model assumptions.

4.4 Policy implications for improving the efficiency linkage between enterprises and farmers in the context of international economic integration

Based on research results combined with the experiences in agriculture development of countries such as China, Cambodia, Thailand, India and there are some reference to actual conditions in the Southern region of Vietnam, a number of policy implications are proposed as follows:

- Promote the linkage in the production and consumption as an important policy contributed to restructure the agricultural sector. Need more awareness of the objective and subjective conditions to an economic linkage between enterprises and farmers to work effectively planning for economic development linkages of enterprises with farmers now have center appropriate with the conditions of international economic integration.

- Selection of eligible commodities to implement an affiliate. Focus for some agricultural commodities have special properties that require high science and technology and export-oriented and national branding, take full advantage of comparative advantage.

- Selecting and implementing appropriate forms of association. Promoting collaboration follow the vertical between the segments of the supply chain to help farmer household are finding their way into the market, especially to coordinate with the multinational companies to look for opportunities to penetrate value added chain globally; continue to promote and affirm the role of the farm economy.

- Get more decisive role of the state. Select and appoint the central enterprises or local economic potential, large-scale, have engineering and technology to signed contracts directly with farmers; continue to promote application of science and technology in agriculture with the support of the state, continued support of credit to farmers; construction of the basic rules, standards and requirements necessary for them to co-consumption of agricultural products is done in a coherent way; can be used to create legal mechanisms to manage production and price management to coordinate production and regulate interest relations between the enterprises and farmers; continue to affirm and promote the role of associations such as farmer's associations, agricultural associations, professional associations, etc.

In the economic linkages between enterprises with farmers, the enterprise plays the roles of nuclear determine the success of this form of production under contract. Enterprise is the connection of relationships with other organizations such as the state, scientists, banks, offices of public information to provide the basis for establishing sustainable relationships associated with agriculture people. In the relationship between businesses and farmers, policy concerning involved:

- Establish a mechanism to enforce economic constraints - technical is the most decided basis for linkage relationships between enterprises and farmers. Establish commitments and tightly bound, sustainable towards long-term that binds farmers with agricultural produce has contracts with businesses. Promote the linkage model property relationships of the two closely linkages such as: Combining investment of enterprise with investments by farmers; encouraged to form agricultural processing; have incentives to encourage farmers to buy shares of companies and enterprises to contribute capital to the agricultural cooperatives.

- The interest relationship between business and farmers needs to be handled in harmoniously. Benefits of farmers must be respected; the top priority is to attract new contract farmers that are motivated to development linkages between farmers and enterprises. State law must have exclusive control measures to protect the interests of farmers. Enterprises should pay more attention to the determination of the purchase price of the farmers and focused implementation of risk-sharing solution for farmers because of the perspective of economic cooperation about nature different with relation marketing is that the production plan, share benefits and risks. The most fundamental problem of linkage building between companies and farmers as product consumption must consider the case when market prices fluctuate. On the other hand, the joint project must comply with planning; the right procedures are eligible to enjoy the preferential policies of government.

5. Conclusion

In the context of Vietnam is involved deeply in extensive and comprehensive global economy, the opportunities and benefits that received by Vietnam are unarguable, but this is accompanied by the increasing challenges and greater difficulties. The essence, content and form of international economic integration has made significant changes to witness the release of “new style” agreements such as Trans-Pacific Partnership (TPP), Regional Comprehensive Economic Partnership (RCEP), etc and the introduction of an ASEAN Community (AC) along with the rise of China issues requires businesses and farmers as well as other subjects in the value chain in agricultural production have to implement the linkage in order to enhanced competitiveness, economic efficiency - contribute to social development of sustainable agriculture. The preferential and encourage policies promote linkages between businesses and farmers was established and implemented in Vietnam since 2002 but the effectiveness in the Southeast region as well as in Vietnam is not as expected and potential availability. Now, the linkage between farmers and business just stop at providing input factors which cannot have consumed the output that makes the effectiveness of the linkages in low. Moreover, the effective linkages in present were having mainly from state policies through support farmers about scientific technology and finance while the role of the business is still very faint. The main reason to make the linkages between businesses and farmers low efficiency is that the two sides have not to find the true linkage yet when requirements of enterprise is high while the capacity of farmers is limited, then the role of the state should be more clearly expressed. Economic effective linkages between businesses and farmers are directly affected by the Result of the linkage through the elements (i) economic efficiency of farmer (ii) Environmental policy -

institutions, (iii) The commitment and reliance between businesses and farmers, (iv) The sharing benefits and risks, (v) Management skills and business capacity of the enterprise. With that situation and the impact factors, one more policy should be added to practice effectively contribute to improving the linkages, social and economic efficiency, and sustainable agricultural development.

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