MINISTRY OF EDUCATION AND TRAINING
UNIVERSITY OF ECONOMICS HO CHI MINH CITY

Tran Van Khoat

THE QUALITY OF MANUFACTURER – DISTRIBUTOR RELATIONSHIP: A CASE OF PLASTIC INDUSTRY IN VIETNAM

Major: Administrations
Code: 9340101

SUMMARY OF ECONOMIC PHD THESIS

Ho Chi Minh City - 2019

The research was completed at University of Economics Ho Chi Minh.

Scientific instructors: Assoc. Prof. Ph.D. Ho Thanh Phong
Assoc. Prof. Ph.D. Vo Thi Quy.

Reviewer 1: …….....

Reviewer 2: …….....

Reviewer 3: …….....

The dissertation will be defended in front of thesis scoring Council at the University of Economics Ho Chi Minh City at …… hour ……day ….. month …… year …….

The thesis can be found at the library: …….....

……

CHAPTER 1: STUDY OVERVIEW

1.1. Reason for choosing the study topic

Relationship quality problems have emerged since the late 80s, starting with study by Dwyer and Oh (1987). In the past, in the world, there are many studies on relationship quality (RQ). There are studies examining the components of RQ and the factors affecting the components of RQ (Walter et al., 2003; Loureiro and Cunha, 2017), with study materials on the part of RQ and components of relationship results (Papassapa and Miller, 2007; Odongo et al., 2016), and several papers studying all three cases: components of RQ, the factor affecting the components of RQ and the components of relationship results (Boles et al., 2000; Vize et al., 2017).

The components of RQ vary according to the study context (Sanzo et al., 2003; Kumar and Eshghi, 2013). Some studies have similarities in 3 components of RQ including: trust, commitment and satisfaction (Skarmeas et al., 2008; Bandara et al. , 2017). RQ factors also differ depending on the characteristics of different relationships, industries and cultures (Bennett and Barkensjo, 2005; Hsin Hsin Chang et al, 2012; Lu and Wang, 2017). The components of relationship results also vary according to the study context, relationships and in different fields (Crosby et al., 1990; John et al., 2011; Chu et al., 2016).

In the country, there have been some studies on relationship quality (Nguyen and Nguyen, 2010, 2011, 2014; Hoang Le Chi, 2013). In addition, a number of other studies are related to the relationship between manufacturers and distributors (Do Ngoc My and Dang Van My, 2008; Tran Thanh Tung and Pham Ngoc Thuy, 2009).

On the other hand, consider 142 studies on RQ from 1987 - 2017 (according to annex 01 of the thesis), including 64 documents summarized by Athanasopoulou (2009) (from 1987 - 2007) and 78 studies (from the year 2008 - 2017) compiled by the author, there are only 5 studies on the quality of the relationship between manufacturer and distributor (Dwyer and Oh, 1987; Johnson et al., 1993; Kumar et al., 1995; Goodman and Dion, 2001; Loureiro and Cunha, 2017). The remaining studies (137 studies) largely consider buyer relationships - general sellers, B2B relationships, and other relationships. Therefore, it can be said in the above documents, very few studies on the quality of specific relationships between manufacturers and distributors. In addition, there are four studies in manufacturing (Selnes, 1998; Henning-Thurau, 2000; Park and Deitz, 2006; Aurier and Lanauze, 2011). Compared to the above 142 documents, the

number of studies on RQ in the context of manufacturing industry can be said to be few.

Through the study of the theoretical context of RQ, documents and studies related to the quality of the above-mentioned domestic and foreign relationships, the following remarks can be drawn:

First, Lack of uniformity in RQ components, factors affecting RQ components and components of relationship results (Naude and Buttle, 2000; Naoui and Zaiem, 2010; Izogo, 2016).

Second, Different study contexts will give different results on the scale of components of RQ, the factors affecting the components of RQ and the components of the relationship results (Athanasopoulou, 2009, p. 583, 481).

Third, Most studies examine the quality of relationships in buyer-seller relationships in general, B2B relations or other relationships (Athanasopoulou, 2009). Few studies have looked at the specific relationship of manufacturer and distributor.

Fourth, most of the previous documents study the quality of buyer-seller relationships in the context of trade and service sectors. Fewer studies considers the quality of relationship between buyers and sellers in the context of manufacturing industries.

Considering the practical context of Vietnam's economy, we also see the following issues:

First, Vietnam is a developing country, the economy in the transition period. The Party and the Government have paid attention to production and business activities in general and plastic production and business in particular. The aim is to develop production, encourage businesses to link product consumption, develop distribution systems and improve competitiveness for businesses.

Second, production and distribution units in the plastic industry are less interested in the quality of relationships, so they often face difficulties in product consumption, market information, etc. According to Nguyen & Nguyen (2011, p.319) Vietnamese manufacturers need to find ways to establish quality relationships with distributors.

Third, Until the time of this thesis, there has not been any material in the country studying the quality of the relationship between the manufacturers and the plastic industry in the context of the transition economy like Vietnam.

The comments drawn from the above theoretical study and practical context are the gap to study the relationship between production and business, or the relationship between manufacturing enterprises

(manufacturers) and distributing enterprises (distributor) in the plastic industry in Vietnam.

According to Nguyen Dinh Tho and Nguyen Thi Mai Trang (2009, p.7), the quality of relationships can be assessed generally through the efforts of enterprises to achieve good relationships with business partners (customers, suppliers, distributors, ...). In order for the concept of "relationship quality" to be more generalized and popular, researchers should investigate in different fields, professions and countries (Athanasopoulou, 2009, p. 604).

Therefore, in order to fill the gap of the above study, the author performs the thesis with the topic: "Quality of relationship between manufacturers - distributors: Study in plastic industry in Vietnam"**.**

1.2. Objectives of the study

- Discover the components of RQ, the factors that affect the components of RQ and the components of the relationship results between the manufacturer and the distributor.
- Quantify the impact of factors that have explored components of RQ, and quantify the effects of RQ components on the components of the relationship between manufacturers and distributors.
- Verifying the scale of components of RQ, factors affecting the components of RQ and the components of the results of the relationship between manufacturers and distributors.
- Proposing management implications to improve RQ and the relationship results between manufacturers and distributors.

To solve the study objectives well, the thesis needs to clarify the following questions:

(1) What is the components of RQ and the components of the relationship results?

(2) Which factors affect the components of RQ?

(3) The degree of influence of factors on the components of RQ and the effect of RQ components on the components of relationship results?

(4) What management solutions should managers do to improve RQ?

1.3. Object and scope of the study

The object of the study is: the components of RQ, the factor affecting the components of RQ and the components of the result of the relationship between the manufacturer - the distributor.

Scope of study: Survey of study objects from the point of view of a distributor specializing in trading plastic products of construction materials and household plastic.

Subjects of survey: directors, business owners, shop owners, some employees in charge of buying and selling of plastic distributors in Ho Chi Minh City area, Southwestern provinces and some provinces in the Southeast.

1.4. Study methods

This study combines qualitative and quantitative methods. The process is carried out in two steps: preliminary and official. Detailed study steps are presented in chapter 3.

1.5. The layout of the thesis

Chapter 1: Study overview.
Chapter 2: Theoretical basis and study model.
Chapter 3: Study design - Preliminary and quantitative study.
Chapter 4: Official quantitative study results.
Chapter 5: Conclusion and implication of governance.

CHAPTER 2: THEORETICAL BASIS AND STUDY MODEL

2.1. Theoretical basis

The relationship includes complex structural, economic and social aspects, so there are many theories to explain (Petrovic, 2006, p. 12). However, through summarizing the background theory of 142 studies on RQ from 1987 - 2017 (according to Appendix 02 of the thesis), there are 131 documents (accounting for 92%) using study theory Relationship marketing theory as background theory to explain the content of RQ. Some studies, in addition to arguing about RQ, also use other theories such as social exchange theory, trust theory - commitment, ... to explain related concepts. Because relationship marketing is the main theoretical basis of most RQ studies presented in Appendix 02. Based on the above documents, we choose "Relationship Marketing" as background theory for study of the RQ between manufacturers and distributors in the context of plastic industry in Vietnam.

2.2. Relationship marketing theory

Relationship marketing theory formed in the late 70s, based on 4 traditional marketing elements: business marketing, marketing channels, service marketing, database marketing and direct marketing. The four

elements of traditional marketing have contributed greatly to the transition from exchange marketing as a transaction phenomenon to relationship marketing (Kristian and Aino, 2000, p.32).

The core issue of relationship marketing is revolving around attracting, maintaining, improving profits, long-term orientation and benefiting stakeholders (Agariya and Singh, 2011). Marketing relationship is one of the main factors that help businesses gain a competitive advantage. Therefore, in order to maintain competitive advantage as well as ensure sustainable development, businesses must pay attention to creating long-term relationships with customers. In other words, manufacturers should establish relationships with distributors to improve business efficiency and long-term cooperation.

In marketing channels, distributors often face increasing competition and competition from partnerships (Mudambi and Aggarwal, 2003). Manufacturers and end-users often pressure distributors to provide better services and match the needs of the channel. Therefore, in order to benefit long-term, the distributor must have a cooperative relationship with the manufacturer to bring efficiency and better quality to the relationship of the two parties (Cavusgil et al, 2004).

2.3. Relationship quality

Relationship quality (RQ) is an overall structure consisting of several important results that reflect the general nature of exchange relations (Dwyer et al., 1987; Kumar et al., 1995). Many studies have highlighted different benefits for both sellers and buyers from high quality business relationships. According to Svensson and Mysen (2011), RQ is a major pillar of relationship marketing theory.

Recently, there have been many studies on the concept of RQ, but the documents did not reach a general consensus on the components of RQ (Naude and Buttle, 2000; Bove and Johnson, 2001). The author's thesis has synthesized 29 definitions of RQ from foreign and domestic studies. In the process of reviewing and understanding, we pay attention to the concept of "RQ is a high-level structure of trust, commitment and satisfaction" by Skarmeas et al. (2008, p.23). After conducting qualitative research, experts agreed: RQ between the manufacturer and distributor in the plastic industry in Vietnam is the feeling of both sides in terms of trust, commitment and satisfaction.

2.4. Studies of relationship quality

Athanasopoulou (2009) summarized 64 studies of RQ from 1987 to 2007. These documents mainly consider the concept of RQ, the premises

and the results of RQ. As a result of the study, Athanasopoulou introduced a general conceptual framework according to Figure 2.2 of the thesis. This framework can be used in all study contexts, guiding researchers to develop appropriate scales for future RQ-related studies. From 2008 - 2017, the author has synthesized 78 studies on RQ (Appendix 01 of the thesis). Most documents consider the quality of B2B relationships, between buyers - sellers, between suppliers and their customers, etc. Very few studies consider the specific relationship between manufacturers and distributors.

2.5. Studies related to the topic of the thesis

Ulaga and Eggert (2006), studying the value of relationships and RQ of businesses in the United States. Skarmeas et al (2008), understanding market and export characteristics affects the development of RQ in the context of import distributors doing business with export manufacturers. export of industrial products in the UK. Nguyen Dinh Tho and Nguyen Thi Mai Trang (2011) explore the role of personal interaction on the value of the relationship between manufacturers and distributors in the brick and household appliances industry in Vietnam. Sabherwal and Chan (2001), study on market information systems affects the business linkage and performance of businesses in North America. Rodriguez et al. (2006) examines the factors affecting satisfaction in the relationship between manufacturers - distributors in Spain. Tohidinia and Haghighi (2011), study the main factors affecting RQ between banks and customers in Iran. Woo and Ennew (2004), studying the concept of quality B2B relationships in the Hong Kong technical consulting industry. Song et al. (2012) examines RQ and effectiveness of buyers in China.

2.6. Basis of forming study hypotheses

2.6.1. Components of relationship quality

According to Naoui and Zaiem (2010, p.142), the components of RQ can be divided into three groups: the intention of behavior, the relationship and the outcome of the relationship. In it, the group of relationships includes: trust, commitment and satisfaction are considered prominent components of RQ (Morgan and Hunt, 1994; Rauyruen and Miller, 2007; Bandara et al, 2017). Our study carried out qualitative methods, through hands-on discussion and group discussion with 23 managers of manufacturing and distribution companies in the plastic industry in Vietnam, discovered: trust, orange and satisfaction of 3 components of RQ between manufacturers and distributors in plastic industry in Vietnam.

Trust: Faith is the foundation of any relationship (Bojei and Alwie, 2010, p.85), which are essential for building quality of relationships (Mouzas et al., 2007). Belief is an indicator of relationship quality (Batt, 2001; Toni et al., 2015), and is an important component in the relationship between manufacturers and distributors (Song and Zhao, 2004).

Commitment: the promises of channel members to keep the partnership alive (Kim et al., 2001). Commitment to take a central role in developing buyer-seller relationship models (Anderson and Weitz, 1992; Cullen et al., 1995). Commitment is difficult to appear without trust, which forms the basis of relationship marketing (Morgan and Hunt, 1994).

Satisfaction: is the emotional state from assessing aspects of a working relationship between a company and a company (Anderson and Narus, 1984; Rodriguez et al., 2006), which is the key to maintaining customers (Kotler, 1994). In the manufacturers and distributors relationships, many authors have emphasized the importance of satisfaction in distribution channel relations (Selnes, 1998; Rodriguez et al., 2006). Thereby satisfaction becomes a component of relationship quality.

2.6.2. Factors affecting the components of the relationship quality

The factors affecting the components of RQ have been mentioned by many studies (Athanasopoulou, 2008, 2009; Naoui and Zaiem, 2010). However, the studies do not have consensus on the factors affecting the components of RQ. Due to different study contexts, the results have many different factors affecting the components of RQ (Athanasopoulou, 2009, p. 583). On the basis of the factors affecting the components of RQ in Appendix 03 (of the thesis). We have conducted qualitative research. The results of qualitative research have discovered 6 factors affecting the components of RQ between manufacturers and distributors in plastic industry in Vietnam, including: product quality, delivery quality, market information, communication, personal interaction and visits.

2.6.2.1. Product quality affects trust, commitment and satisfaction

According to Shetty (1987, p.46), product quality is an important attribute that customers use to evaluate products. In the relationship between distributors and manufacturers, distributors maintain relationships with manufacturers to always be provided with high quality products (Nguyen and Nguyen, 2011). Therefore, based on study by Nguyen and Nguyen (2011), our study examines how product quality impacts on three components (trust, commitment and satisfaction) of RQ between manufacturers and distributors, with three assumptions as follows:

H(1a/1b/1c). *Product quality has a positive impact on trust/commitment/satisfaction between manufacturers and distributors.*

2.6.2.2. Delivery quality affects trust, commitment and satisfaction

Delivery is the process of transporting goods from source location to predetermined destination (Nishio and Kishino, 2003). Quality of delivery is a factor that can add value to the relationship between manufacturers and distributors (Nguyen and Nguyen, 2011, p. 320). Based on documents by Nguyen and Nguyen (2011), this study examines the impact of delivery quality on three components of RQ between manufacturer and distributor, with the following assumptions:

H(2a/2b/2c). *Delivery quality has a positive impact on trust/commitment/satisfaction between manufacturers and distributors.*

2.6.2.3. Market information affects trust, commitment and satisfaction

Market information is external data related to the present and future of a business (Harmancioglu et al, 2010). In the relationship between manufacturers and distributors, appropriate information from manufacturers will help distributors understand the production plan, technological changes in the industry (Nguyen and Nguyen, 2011, p. 320). Based on the study of Sabherwal and Chan (2001), our study examines the impact of market information on the three components of RQ between manufacturers and distributors, with the following assumptions:

H(3a/3b/3c). *Market information has a positive impact on trust/commitment/satisfaction between manufacturers and distributors.*

2.6.2.4. Communication affects trust, commitment and satisfaction

Communication is a formal and informal sharing of meaningful and timely information among enterprises (Bojei and Aryaty, 2010). Communication between manufacturers and distributors is the glue to keep their relationship (Song and Zhao, 2004). Based on two studies (Rodrıguez et al., 2006; Tohidinia and Haghighi, 2011), we study communication that affects three components of RQ between manufacturer and distributor, with the following assumptions:

H(4a/4b/41c). *Communication has a positive impact on trust/commitment/satisfaction between manufacturers and distributors.*

2.6.2.5. Personal interaction affects trust, commitment and satisfaction

In the relationship between the manufacturers and the distributors, personal interaction involves an individual-level interaction between distributors and manufacturers (Nguyen and Nguyen, 2011). Improving personal interaction between distributors and manufacturers will benefit

both parties, resulting in better performance (Cater and Cater, 2010). Based on study by Nguyen and Nguyen (2011), this study examines how the individual interaction factor affects three components of the RQ between manufacturers - distributors, with the following assumptions:

H(5a/5b/5c). *Personal interaction has a positive impact on trust/commitment/satisfaction between manufacturers and distributors.*

2.6.2.6. Visit affects trust, commitment and satisfaction

In the relationship between manufacturers and distributors, manufacturers visit distributors to make agreements on sales policies. After agreement, distributors and sales agents will go to the manufacturer to learn about the uses, features, and quality of the product and proceed with ordering (Narus and Anderson, 1987, p. 37). The frequency with which a manufacturer visits customers in a business relationship reflects the intensity of the information collection and that customers will have better sales policies (John and Christopher, 1999, p. 1288). Therefore, this study examines how the visit factor influences the three components of RQ between manufacturers and distributors, with the following assumptions:

H(6a/6b/6c). *Visit has a positive impact on trust/commitment/satisfaction between manufacturers and distributors.*

2.6.3. Components of relationship results

Previous studies have identified many components of relationship results. Depending on the type of product or service, the types of relationships, relationship characteristics... that have different results (Athanasopoulou, 2008, p. 481). According to Athanasopoulou (2009, p. 599), the components of relationship results are classified into three groups: business efficiency, relationship benefits, and satisfaction. Based on the classification of Athanasopoulou, the author has synthesized some of the main components of the relationship result according to appendix 04. On that basis, we have implemented a qualitative method. The results have discovered two components of the relationship results: Business performance and cooperation.

2.6.3.1. Trust, commitment and satisfaction affect business performance

In the relationship between manufacturer and distributor, the criteria used to evaluate the effectiveness of a partnership are: profit, growth generated by cooperation or effectiveness of relations. partners (Chen and Wu, 2010, p. 689). According to Nguyen and Nguyen (2011, p. 319), the distributor's business performance is defined as the completion,

feel or reality, resulting from the relationship between distributor and manufacturer (Rosson and Ford, 1982, p. 61). Therefore, based on two studies (Nguyen and Nguyen, 2011; Song et al., 2012), we consider the three components (trust, commitment and satisfaction) of RQ between manufacturers and distributors. How the distribution affects the business performance of distributors, with the following assumptions:

H(7a/7b/7c). *Trust / commitment / satisfaction between manufacturers and distributors has a positive impact on business performance.*

2.6.3.2. Trust, commitment and satisfaction affect cooperation

Collaboration is working together, the parties work together to achieve a common goal (Leonidou et al., 2006), which is an exchange and coordination activity. work coordination between buyers and sellers (Qin Su et al., 2008). According to Sequeira & Carvalho (2012, p.118) in the relationship between manufacturers and distributors, manufacturers who cooperate with distributors will increase their trust in each other, improve their and effective for both parties. Based on two studies (Woo and Ennew, 2004; Song et al., 2012), our study examines how the three components of RQ affect the collaboration between manufacturers and distributors, with the following assumptions:

H(8a/8b/8c). *Trust / commitment / satisfaction between manufacturers and distributors has a positive impact on cooperation.*

2.7. Theory model

From the argument base on the above study hypotheses, the theoretical model of study on RQ between manufacturers and distributors in the context of plastic industry in Vietnam is presented in Figure 2.3.

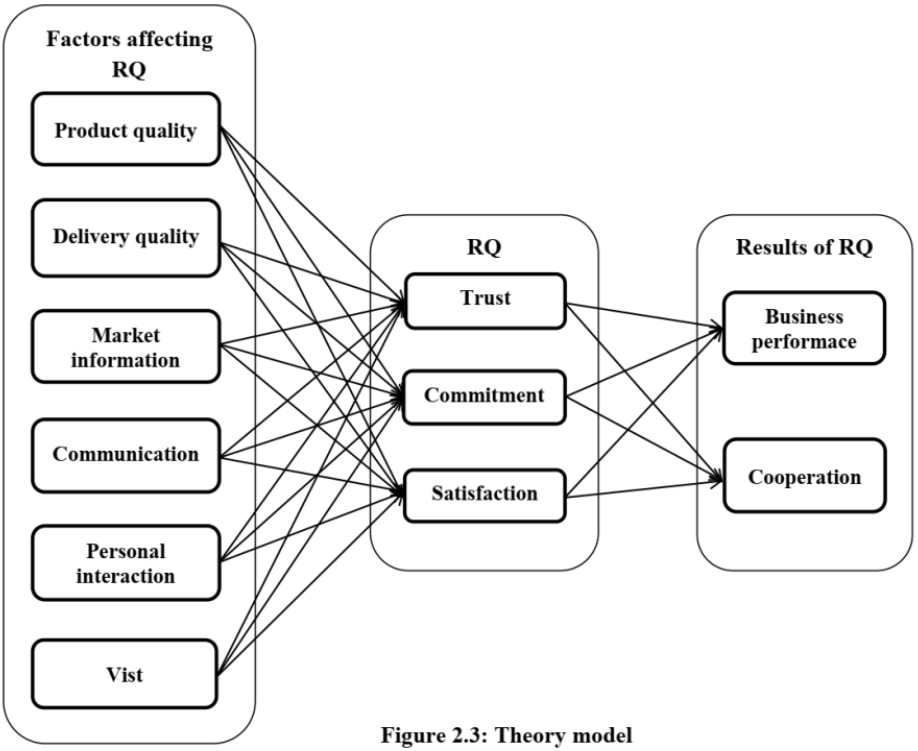

Figure 2.3: Theory model

(Source: Author's synthesis)

CHAPTER 3: STUDY DESIGN

3.1. Study process

The objective of the study is to explore and measure the scale of the components of RQ, which affects the components of RQ and the components of the outcome of the relationship between manufacturers and distributors. The process of exploring and building the scale of this study is based on the process of building scales of Churchill (1979) and Nguyen and his colleagues (2007). The process diagram is shown in Figure 3.1.

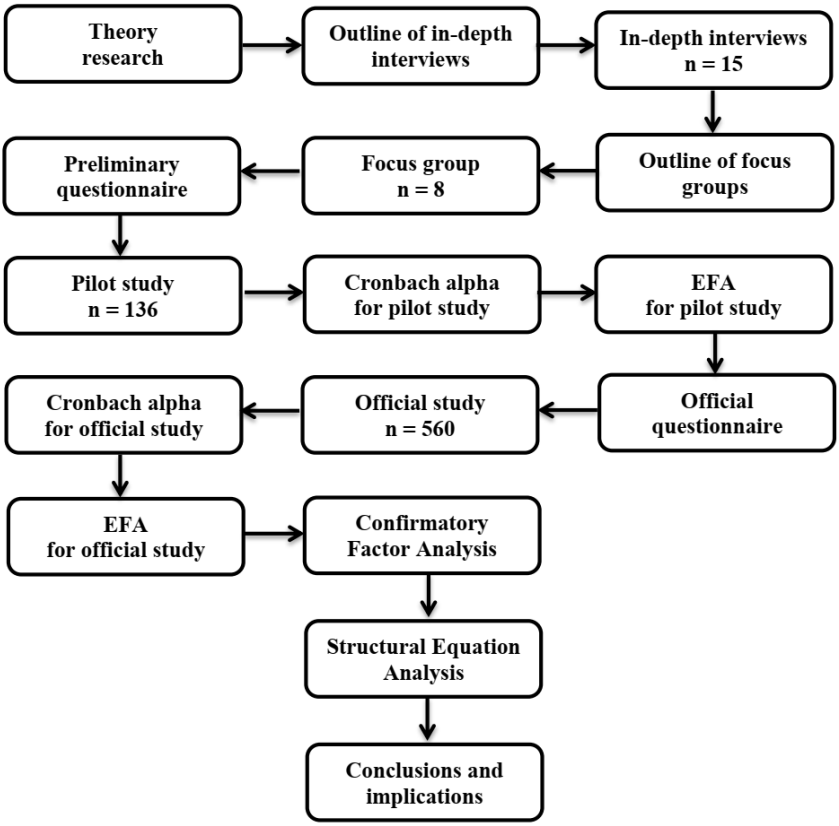

Figure 3.1: Diagram of research process

(Source: Author's synthesis)

3.2. Qualitative research

Qualitative methods in this study are used through two tools: two-person discussion and group discussion.

3.2.1. In-depth interviews

- **Objectives of in-depth interviews:** Discover the components of quality relationship between manufacturers and distributors. Discover the factors that affect the components of the relationship quality between manufacturers and distributors. Discover the components of the relationship results between manufacturers and distributors.

- **Outline of in-depth interviews:** presented in **a**ppendix 05 of the thesis.
- **Methods:** The in-depth interviews process is conducted with the first, second, third ... until the opinions are saturated, there is no new idea. A total of 15 people participated in the two-person discussion. The list of experts participating in the discussion is presented in appendix 06 (of the thesis).
- **Results of in-depth interviews:** Discovered:

- 04 components of the RQ: trust, commitment, satisfaction and cooperation.
- 08 factors that affect the components of the RQ: Product quality, delivery quality, communication, personal interaction, information exchange, visit, market information and power. In which, there are 2 new factors: "Visit" and "Market information".
- 03 components of relationship results: purchasing efficiency, sales efficiency and business efficiency.

And suggestions of experts:

- Move the "Cooperation" component into the components of the relationship results.
- Combine two factors "Market information" and "Information exchange" into one factor which is "Market information".
- Combine the two components of the relationship result: "Sales efficiency" and "Purchasing efficiency" into a component of the relationship result which is "Business performance".

However, according to Nguyen Dinh Tho (2011, p.127), due to the absence of interactions among the study subjects, the factors are less approved, additional factors, proposals have not been criticized and agreed upon by the subjects. Therefore, we conducted a second qualitative research with the group discussion tool.

3.2.2. Focus group

- **Objectives of focus group:**

Continue to carry out the contents as discussed in the two-person discussion, it is : (1) Exploring the components of RQ, the factors affecting the components of the RQ and the components of the outcome relationship between manufacturers and distributors; (2) Discover the observed variables of the RQ component scale, the factors that influence the components of RQ and the components of the outcome relationship between manufacturers and distributors.

- **Outline of focus group:** presented in appendix 07.

- **Method:** The facilitator of the group discussion introduced the purpose, meaning of the discussion, and asked the experts to discuss and comment on each content.
- **Results of focus group:**

- Discover 03 components of RQ between manufacturers and distributors in the plastic industry in Vietnam including: trust, commitment and satisfaction.
- Discovering 06 factors affecting three components (trust, commitment and satisfaction) of RQ between manufacturers and distributors in the plastic industry in Vietnam including: product quality, delivery quality, marketing information school, personal interaction and visit. In particular, "visit" and "market information" are two new factors.
- Discovered 02 components of the results of the relationship between manufacturers and distributors in the plastic industry in Vietnam including: business efficiency and cooperation. In particular, "cooperation" is a new component of the relationship between manufacturers and distributors in the context of plastic industry in Vietnam.
- Experts have commented and corrected the observation variable of the scale components of RQ, the factors affecting the components of RQ and the components of the results of the relationship between manufacturers - distributors to suit Vietnamese context. The draft scale from the original scale of related studies has been adjusted and is presented in appendix 06 of the thesis.

3.3. Concept scale in study model

This study has 11 scales, with 44 observed variables. Observed variables are included in the questionnaire to conduct surveys, verify samples by preliminary quantitative methods.

3.4. Preliminary quantitative research

3.4.1. Preliminary quantitative research questionnaire

Preliminary quantitative research questionnaire with 11 scales and 44 observed variables. Based on original scale-related studies (Ulaga and Eggert, 2006; Skarmeas et al., 2008; Nguyen and Nguyen, 2011; Sabherwal and Chan, 2001; Rodriguez et al., 2006; Tohidinia and Haghighi, 2011; Woo and Ennew, 2004; Song et al, 2012). These studies use a 7-point Likert scale to assess the extent to which the observed variables of relevant scales can be agreed. Therefore, the study in this thesis also uses 7-point

Likert scale to evaluate the level of consent for all observed variables, with 1: Absolutely disagree, ... and 7: Absolutely agree. The questionnaire is presented in appendix 11.

3.4.2. Preliminary survey form

Preliminary quantitative research is carried out with distributors of plastic products in Ho Chi Minh City area. In the preliminary study, we selected samples according to non-probability sampling, used convenience sampling method combined with judgment sampling method to select samples. The total number of samples is 170, using 170 questionnaires to interview. The number of satisfactory questionnaires is 136.

3.4.3. Preliminary assessment of the scale

- **Evaluate reliability of the scale with Cronbach alpha**

The results of reliability evaluation of 11 scales with Cronbach alpha coefficient show that all scales have a coefficient of $\alpha > .60$, ensuring necessary reliability. The correlation coefficients of the observed variables are > .30 (according to appendix 14). Thus, the scale reaches reliability. In particular, variables SGT2 and SHT1 have a correlation coefficient of total variables <.30 so these two variables are excluded.

- **Evaluate the scale value by EFA analysis**

The results of EFA scale of concepts in 3 groups show that: all groups have Eigenvalue > 1 and the total variance extracted is > 60%. The factor weight of the observed variables > .50 and the observed variables have a factor weight difference between the factor weight of that variable and other factors > .30. Therefore, the scale value of these concepts is satisfactory. In particular, the variables SGT2 and SHT1 have a factor weight of <.50 so these two variables are excluded.

Thus, preliminary quantitative research results, with 2 observed variables excluded (SGT2 and SHT1), 42 remaining observed variables were put to use in official quantitative research.

CHAPTER 4: OFFICIAL QUANTITATIVE RESEARCH RESULTS

4.1. Official quantitative research

4.1.1. Official quantitative research questionnaire

The questionnaire used for formal quantitative research is based on satisfactory scales according to preliminary quantitative research results, with 11 scales and 42 observed variables. The 7-point Likert scale

continues to be used to assess the level of consent for all observed variables (according to appendix 17).

4.1.2. Official survey form

According to Hair et al. (2006), to use EFA, the minimum sample size must be 50, preferably 100 and the measurement / measurement ratio is 5:1, meaning a measurement variable needs to be minimal. is 5 observations, preferably 10: 1 or more. Of the 11 scales of this study, there are 42 measurement variables. Therefore, the best sample size is 42 x 10 = 420.

In the official study, we selected non-probability samples, using quota sampling. Then, use convenient and judgmental methods to choose patterns. The total number of samples is 700, using 700 questionnaires for interviews. The number of questionnaires is 560.

4.1.3. Results of reliability evaluation of the scale with Cronbach alpha

The results of reliability evaluation of the scales with Cronbach alpha coefficient show that all scales have coefficient α> .60 and greater than coefficient α in preliminary quantitative research, thus ensuring necessary reliability. The correlation coefficients of the observed variables are> .30 (Appendix 20). Thus, the scale reaches reliability.

4.1.4. Evaluate the scale value by EFA analysis

EFA results of scales in official quantitative research have 11 factors extracted at Eigenvalue = 1,017> 1 and the total variance extracted (TVE) is 66.740%> 60%. The factor weight of the observed variables> .50 and the observed variables have a factor weight difference between the factor weight of that variable and other factors> .30. Therefore, the scale value of these concepts is satisfactory. In particular, variables LT5, TTTT1 and SGT5 have factor weight <.50 so these three variables are excluded.

Thus, the official quantitative research results, with three observed variables excluded (LT5, TTTT1 and SGT5), the remaining 39 observed variables are included in the analysis of the next inspection methods.

4.1.5. Verify the scale by CFA analysis

- **Aggregate reliability coefficient and variance extracted**

The composite reliability (CR) of concepts is> 0.7; and the average variance extracted (AVE) of the concepts are> 0.5. Therefore, the results of the measurement of the concepts meet the requirements of CR and AVE.

- **Relevance of the model with market data**

Figure 4.1 (in the thesis) presents the results of CFA scale (standardization) analysis, with the indicators: Chi-square / df = 2.166 <3; P

= .000; GFI = .880> .80; TLI = .941 and CFI = .948 are all> .90; RMSEA = .046 ≤ .08. These indicators are satisfactory. Therefore, the model is suitable for market data.

- **Convergence value**

The observed variables used to measure study concepts have converged values.

- **Discriminant validity**

Table 4.2 in the thesis shows that the MSV and ASV indicators of concepts are smaller than the AVE index. Thus, the concepts reach differentiated values.

4.1.6. Verify theoretical model and hypotheses with SEM

4.1.6.1. Verify theoretical model

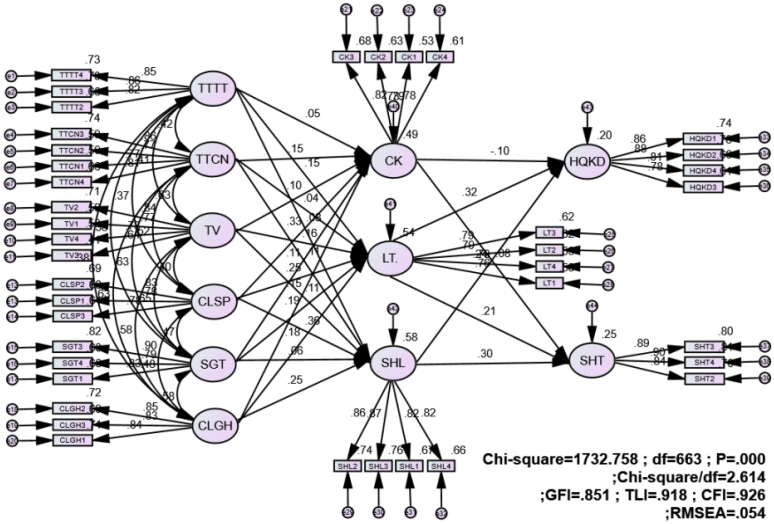

Figure 4.2: Results of SEM (standardized) model theory

(Source: Author's synthesis).

Figure 4.2 shows the SEM (standardized) results of the theoretical model, with Chi-square / df = 2,614 <3; P = .000; GFI = .851; > .80 (by Bagozzi & Youjae, 1988), TLI = .918, CFI = .926 are all> .90; RMSEA = .054 ≤ .08 should be satisfactory. Therefore, this model achieves compatibility with market data.

4.1.6.2. Verify hypotheses

SEM verification results, regression coefficients (not standardized) of the relationships in the model are presented in Table 4.5 (of the thesis).

The estimates (Estimate) of 23 concepts are positive, so the relationships are positive. Most P values are satisfactory and statistically significant. Hypothesis H7b (CK → HQKD) has Estimate negative value so this hypothesis negatively affects. The total number of hypotheses of the study model is 24. There are 19 suitable and accepted hypotheses. In which: 16 hypotheses are accepted at the statistical significance level of 5% ($p < .05$), including: H1a, H1b, H1c, H2a, H2b, H2c, H3a, H3c, H4a, H5b, H6a, H6c, H7a, H7c, H8a and H8c. Three hypotheses were accepted at 10% statistical significance ($p < .1$), including: H4b, $p = 0.078$; H5c, $p = 0.051$; H7b, $p = 0.070$. Five irrelevant hypotheses are: H3b, H4c, H5a, H6b, and H8b.

Next, Table 4.6 (of the thesis) presents the regression coefficient (standardization) of relationships in the model, reflecting the level of impact of relationships. Accordingly, the hypothesis H1c has the strongest impact level (CLSP has the strongest impact on SHL - Estimate = 0.357), followed by the hypothesis H7a (LT impacts on operational efficiency - Estimate = 0.319), and finally impact the weakest is H5a (LT affects TTCN - Estimate = 0.039).

4.1.6.3. Verify competitive model

SEM results of the competitive model are presented in Figure 4.4 in the thesis. The indicators are satisfactory, so the competitive model is suitable for market data. In addition, appendix 25 in the thesis shows the hypothesis Hc: TTTT → SHT ($\lambda = 0.081$, $p = .111 > .1$) is not statistically significant, so it is not accepted. Therefore, compared to the competitive model, the theoretical model in this study is more suitable to the market reality.

4.1.6.4. Verify by bootstrap method

With the original sample data (crowd) of the study is 560 observations. This study uses bootstrap method with the number of repeating samples N = 1000. The verification results in Appendix 26 of the thesis show that the relationship has very small (Bias), and the percentage of degrees The comparison with the standard deviation of the bias (CR) is also very small (the highest value CR = 3 < 5%). Therefore, the estimates in the theoretical model of this study can be trusted.

4.1.7. Theoretical model and hypotheses after verification

4.1.7.1. Hypotheses after verification

Results of model verifying and 24 study hypotheses by SEM method show that 5 hypotheses are not accepted. Therefore, 19 suitable

hypotheses (in which: 18 positive impact hypotheses and 1 negative impact hypothesis) are presented in appendix 27.

4.1.7.2. Theoretical model after verification

Based on accepted assumptions hypotheses. The theoretical model after verification is presented in Figure 4.5.

4.2. Verify the difference of factors affecting RQ

4.2.1. Multi-group structure analysis

This thesis examines the influence of factors on the three components of RQ, by comparing differences in groups: group of distribution products and group of capital ownership forms of distributors.

4.2.2. Verify products group

(1) Compare the differences between the two models - products group

There is a difference in Chi-square between the variable model and the invariable model. Thus, the variable model is selected.

(2) The impact of relationships in the variable model

- **For construction material plastic group**

There are 11 positive impact relationships (P <.05) so they are accepted. Seven relationships (P > .05) are not accepted.

- **For household plastic**

There are only 3 positive impact relationships (P <.05) so they are accepted. Fifteen relationships (P > .05) are not accepted.

(3) The impact level of relationships by products group

For construction material plastic: CLSP has the strongest impact on the components of RQ. Next is CLGH, SGT and TTCN.

For household plastic: TTCN has the strongest impact on the component of RQ. Next is TV, TTCN, CLSP and CLGH.

4.2.3. Verify ownership forms group

(1) Compare the differences between the two models – ownership forms group : The variable model is selected.

(2) The impact of relationships in the variable model

- **For enterprise group :**

There are 8 positive and statistically significant impact relationships so they are accepted. Ten relationships are not accepted.

- **For individual business household group:**

There are 10 positive and statistically significant impact relationships so they are accepted. Eight relationships are not accepted.

(3) The impact level of relationships by ownership forms group

For enterprise group: TTCN has the strongest impact on two components of RQ. Next is SGT, CLGH and TV.

For individual business group: CLSP has the strongest impact on 3 components of RQ. Next is CLGH and TTTT.

4.3. Discuss the study results

4.3.1. Discuss the components and influencing factors compared to previous studies

Components of RQ: Appendix 32 shows that most of the studies in the Americas, Europe, Asia and Vietnam mentioned the three components of RQ: trust, commitment and satisfaction.

Factors affecting the components of RQ: *Product quality* (CLSP), *Delivery quality* (CLGH): Studies in the Americas, Europe and Asia did not address the factors CLSP and CLGH. *Market information* (TTTT): Only one study in Europe (Velez et al, 2015) refers to the TTTT factor. *Communication* (SGT): There are 4 studies in the Americas, 1 study in Europe and 2 studies in Asia refers to the SGT factor. *Personal interaction* (TTCN): There are 2 studies in the Americas, 1 study in Asia refers to the TTCN factor. *Visit* (TV): Studies in the Americas, Europe and Asia do not mention TV.

Components of relationship results: *Business efficiency* (HQKD): America and Europe have 1 study, Asia has 2 studies mentioning HQKD factor. *Cooperation* (SHT): The Americas and Asia have 1 study mentioning the SHT factor.

4.3.2. Discuss the scale compared to previous studies

Study results show that, in 11 scales there are 9 scales similar to related studies. The "visit" scale is a newly discovered and supplemented scale in qualitative research. The scale of "market information" is developed from the scale of "market information system" by Sabherwal and Chan (2001).

4.3.3. Discuss verified hypothesis compared to previous studies

Of 24 hypotheses, 16 hypotheses are accepted and consistent with the relevant studies. A hypothesis is accepted but has a negative impact compared to previous studies (This is a new point in the context of plastic industry in Vietnam). The two hypotheses are consistent but not found in other studies. (This is a hypothesis discovered and supplemented in the qualitative research of the thesis). Five hypothesis is rejected.

CHAPTER 5: CONCLUSIONS AND ADMINISTRATION IMPLICATIONS

5.1. Summary of the main findings of the study

First, the results of qualitative research determined 03 components of RQ between manufacturers - distributors in the plastic industry in Vietnam including: trust, commitment and satisfaction. The six factors affecting RQ components are: product quality, delivery quality, market information, communication, personal interaction and visit. In which: "visit" is a newly discovered and supplemented element, "market information" is a factor developed from the scale of "market information system" in the study of Sabhewan & Chan (2001). The two components of the relationship results are: business efficiency and cooperation. In particular, the cooperation is a new component in the context of RQ study between manufacturers and distributors in the plastic industry in Vietnam.

Second, the results of preliminary quantitative research in Ho Chi Minh City area with sample size n = 136. Assessing the reliability of Cronbach alpha scale to show that all scales have coefficient $\alpha > .60$ and coefficient correlation of the total variables of the observed variables > .30. Therefore, the scales achieve reliability. Evaluating the value of scales by EFA analysis for three groups: the components of RQ, the factors affecting the components of RQ and the components of the relationship results show that the scale values of concepts are satisfactory.

Third, official quantitative research results in Ho Chi Minh City, Southwestern provinces and some Southeast provinces with sample n = 560. Continued evaluation by Cronbach alpha coefficient, scales Every measurement achieves the required reliability. Assessing the value of 11 scales with EFA analysis shows that the scale of concepts is satisfactory.

Fourth, the results of the scale verified by CFA analysis, the scales meet the requirement of conformity (uni-directional, convergent, discriminant). The composite reliability factor (CR) and the variance extracted (AVE) of all scales are accepted.

Fifth, verifying by SEM model shows that the theoretical model is suitable for market data. Verifying study hypotheses: The total number of hypotheses of the study model is 24. There are 19 suitable and accepted hypotheses. In which: 16 hypotheses were accepted at the statistically significant level of 5% ($p < .05$), three hypotheses were accepted at the 10% statistical significance ($p < .1$). Five hypotheses are inappropriate and disqualified. Verifying of competitive model shows that the Hc hypothesis

is not accepted, so the study model is more suitable for market data. Verified by bootstrap method, the relationships in the model can be trusted.

Sixth, verifying the difference of the factors affecting the components of RQ by multi-group structural analysis. The two groups used for analysis are: product groups and ownership forms. Results of verifying the variable model of products group. Construction material plastic group: There are 11 positive impact relationships and are accepted at 5% statistical significance. Seven relationships due to P values > .05 so they are not accepted. Household plastic group: only 3 positive impact relationships so they are accepted at 5% statistical significance. Fifteen relationships due to P values > .05 so they are not accepted. Results of verifying the variable model of the ownership forms group. The enterprise group with 8 positive and statistically significant impact relationships so they are accepted (7 relationships are accepted at the statistical significance level of 5% and one is accepted at the level of 10% statistical significance). Ten relationships due to P values > .1 so they are not accepted. Individual business household group: there are 10 positive and statistically significant impact relationships so they are accepted (9 relationships are accepted at a statistical significance level of 5% and 01 relationship is accepted at a statistical significance level of 10%). Eight relationships due to P values > .1 so they are not accepted.

Seventh, compare study results with previous studies to show that the components of RQ (trust, commitment and satisfaction) are mentioned by many foreign studies; The factors affecting RQ components have few studies. Only three factors (product quality, delivery quality and personal interaction) are mentioned in studies in Vietnam. In addition, previous studies have not mentioned the "visit" factor, this factor may be specific in the context of Vietnam's plastics industry. Comparing the study hypothesis with previous studies, no hypothesis H6a and H6c have yet to mention, the remaining hypotheses have a whole-mentioned study, partly mentioned.

5.2. The contribution of the study

5.2.1. Theoretical contributions

First, the relationship quality theory (RQ) has been interested by many scholars and researchers in the past. This thesis performs study on RQ between manufacturers and distributors in the context of plastic industry in Vietnam, is a developing country and economy in the transition period. Therefore, the results of the study contribute to RQ theory in transitional economies.

Second, the thesis explored the "Visit" scale in qualitative research, developing the scale of "Market Information" from the factor "Market

Information System" of Sabherwal and Chan (2001). Through assessment, the results are consistent and accepted. Therefore, "Visit" and "Market Information" are two new factors affecting the components of the RQ between manufacturers - distributors, contributing to enriching and enriching the scale of factors affecting RQ.

Third, according to previous studies (Athanasopoulou, 2009; Velez et al., 2015) the "Cooperation" scale is part of RQ, but in this study "Cooperation" is a component of the relationship between the manufacturers and distributors, contributing scale up the results of the relationship.

Forth, the three scales of "Product Quality", "Quality of Delivery" and "Personal Interaction" are derived from studies of "relationship values" (Nguyen and Nguyen, 2011) that have been verified in study model of RQ between manufacturers and distributors in plastic industry in Vietnam, the results are suitable and accepted. This issue contributes to the "relationship value" which is the precursor to "quality of relationship" (Ulaga and Eggert, 2006, p. 322), complementing the relationship marketing theory.

Fifth, The results of verifying hypotheses by SEM linear structure model show that hypothesis H7b: *Commitment negatively affects business efficienc).* Through two-person discussion, experts have determined in the context of the relationship between manufacturers and distributors plastic products in Vietnam, there are cases "Commitment negatively affects business efficiency of distributors". This result contributes to the hypothesis system RQ components affect the components of relationship results.

Sixth, the results of verifying the difference of factors affecting the components of RQ by products group (construction material plastic and household plastic) show that the relationships in the construction material plastic group are more accepted than relationships in household plastic group. This proves that RQ relates to the characteristics of the product. Verifying the differences in the factors affecting the components of the relationship quality by ownership group form (enterprise and individual business household). The results show that the relationships in individual business households are more accepted than the relationships in the enterprise group. Showing that RQ also relates to the characteristics of capital ownership form of business units.

Seventh, compare the results of the study with previous studies on the components of RQ, which affects the components of RQ and the components of the relationship results. Compare the scale and verified hypothesis with previous studies. As a result, the similarities and differences in the scale of RQ components are seen, the factors affecting the

components of RQ and the components of the relationship results, and verified hypotheses of the study compared to previous studies, which in turn opens the way for further study.

5.2.2. Practical contributions

First, synthesizing study papers on RQ and the relationship between manufacturers - distributors shows that RQ is essential for business relationships in general and the relationship between manufacturers and distributors in particular.

Second, the results of the study help manufacturers identify the importance of building relationships with distributors; Identify important factors affecting RQ with distributors. On that basis, set out strategies and measures to maintain and develop business relationships, in order to improve operational efficiency for both parties and build long-term cooperative relationships.

Third, among the factors affecting RQ between manufacturers - distributors, the factor "Product quality" is the strongest impact. Therefore, users need to pay attention to improving product quality, ensuring to provide distributors products with high quality and reliability, contributing to increase RQ for both parties.

Forth, study results determine "Visit" and "Market information" are two new factors affecting RQ between manufacturers - distributors in the plastic industry in Vietnam. Therefore, in order to improve RQ, manufacturers need to pay attention to providing accurate and timely information to distributors and visiting distributors regularly.

Fifth, the results of verifying the difference of factors affecting RQ components show that the relationships in the construction material plastic group have a positive impact on the components of RQ rather than household plastic group. Therefore, manufacturers of household plastics need to pay attention to their distributors to increase RQ for both parties. In addition, verifying the difference of influencing factors by ownership group shows that the relationships in individual business households have a more positive impact on the components of RQ than the enterprise group. Therefore, manufacturers need to pay attention to distributors in the form of ownership, to have solutions to further improve RQ between manufacturers - distributors.

5.3. Administration implications

Based on the results, this study presents some implications to improve the relationship between manufacturers and distributors in the context of plastic industry in Vietnam.

5.3.1 Improve RQ from components of RQ

- Increase satisfaction.
- Increase commitment.
- Increase trust.

5.3.2 Improve RQ from factors affecting components of RQ

- Increase product quality.
- Improve delivery methods.
- Enhance communication.
- Increase personal interaction.
- Visit regularly.
- Enhance the supply of market information.

5.3.3 Improve RQ from product distribution characteristics

5.3.4 Improve RQ from characteristics of ownership form of distributors

Thus, the results of this study show that the components of RQ, factors affecting the components of RQ mentioned above play an important role in improving RQ between manufacturers and distributors. The high quality of relationships will increase the business efficiency for distributors. This also benefits the manufacturer. Thus both parties to the relationship gain benefits. Therefore, manufacturers in the plastic industry need to focus on investing in business relationships with their distributors to improve RQ, increase business efficiency and aim for long-term cooperation long.

5.4. Limitations and directions for further study

First, this study has only discovered and verified the components of RQ components, factors affecting the components of RQ and the components of the results of the relationship between manufacturers and distributors in the plastics industry (at Ho Chi Minh City, Western provinces and some Southeastern provinces). Other markets or other sectors may have differences in the components of RQ, which affects the components of RQ and the components of the relationship between manufacturers and distributors.

Second, this study explores and verifies the components of RQ components, which influence the components of RQ and the components of the relationship between manufacturers and distributors on the point of view of distributors specializing in trading construction material plastic and household plastic products (traditional distribution channels). Future study should examine the manufacturer's point of view or combine both sides. In

addition, it is recommended to survey distributors in modern distribution channels (supermarkets).

Third, this study examines the differences in factors affecting RQ's components according to two criteria: distributor products and distributor ownership forms. Other criteria such as business sector, revenue, labor scale of distributors have not been verified.

Forth, this study only considers the factors that influence the components of RQ, and the impact of RQ components on the components of the manufacturer-distributor relationship results. Through a review of 142 studies of RQ, very few studies have been done to consider the relationships in the component cluster of RQ, as the resultant component of RQ.

Fifth, this study is based on deductive methods. On the other hand, the business relationship between enterprises in the transitional market has fundamental differences compared to Western markets. Therefore, future studies can use inductive methods to study the quality of business relationships in transition markets like Vietnam.

LIST OF RESEARCH WORKS

1. Tran Van Khoat, Ho Thanh Phong, Vo Thi Quy (2018). The quality of manufacturer – distributor relationship – A case of plastic industry in Vietnam. *The 13th International Congress on Logistic and SCM Systems*. Ho Chi Minh City, Vietnam, pp 485 – 492.
2. Ho Thanh Phong, Vo Thi Quy and Tran Van Khoat (2018). The result of the quality manufacturer - distributor relationship in plastic industry in Vietnam. *Vietnam Trade and Industry Review*, 11(8), pp.379 – 386.
3. Tran Van Khoat and Ho Thanh Phong (2018). Product quality and business performance in manufacturer – distributor relationship: mediating role of commitment. *Economy & Forecast Review*, 27(9), pp.62 - 65.
4. Ho Thanh Phong and Tran Van Khoat (2018). The quality of manufacturer - distributor relationship in the plastic industry in Vietnam. *Journal of Science*, số 63(6), pp.3 - 16.
5. Tran Van Khoat, Vo Thi Quy, and Ho Thanh Phong (2019). The Quality of Manufacturer - Distributor Relationship: A Case of Plastic Industry in Vietnam. *International Review of Business Research Papers*, Vol. 15. No. 1., Pages: 87-102.