



Griffith College

**A study on the effects of the buyer-supplier
relationship on purchasing Performance and
satisfaction in supply chain management in Malaysia**

Research dissertation presented in partial fulfilment of the requirements

for the degree of **MSc in International Business Management**

Griffith College Dublin, the Ireland Republic of

Dissertation Supervisor: **Prof. Eoghan Mc Conalogue**

Student Name: Hansoo Bok

22nd May 2020

Candidate Declaration

Candidate Name: Hansoo Bok

I certify that the dissertation entitled:

Submitted for the degree of **MSc in International Business Management** is the result of my work and that where reference is made to the work of others, due acknowledgement is given.

Candidate signature:

A rectangular box containing a handwritten signature in black ink. The signature is stylized and appears to be 'Hansoo Bok'.

Date: 22th Feb 2020

Supervisor Name: **Prof. Eoghan Mc Conalogue**

Date: 22nd Feb 2020

Dedication

To My lovely Daughters

I dedicate this dissertation to my adorable twin girls Emma(7yrs) & Hanna(7yrs).

To my Respected Parents, Sister, Brother in Law and lovely Nephew& Niece

I know how great your love, sacrifice, and commitment that you have contributed to my life for uplifting my life in terms of good education. It is time for me to return the same Gratitude, love and happiness. Just saying thank you is not enough but I want to say “Thank you for being there for me. My parents” Dad Jinkak, Mom Kyeonghye, Sister Areum, Brother-in-law Mookyung, Nephew Jaejun(7yrs) and Niece Jiyu(3yrs).

To my Sweet Friends in Griffith College Ireland

My friends mean the world to me. I am so proud to say that save their cooperation, collaboration and teamwork in Research Method 1&2, Managerial Finance, Leadership, Strategic Human Resource Management, Global Marketing, Digital Business, International Strategy, Managerial Economics, Entrepreneurial Innovation, Responsible Business Management and Dissertation.

The study period I spent with you in Ireland was the best time in my life I can proudly say to everyone. Good Beer, Healthy Food, Fresh Living Environment I experienced.

Special thanks to My Best Colleagues Mr Artur & Mr Praveen who inspired me with confidence and encourage me to concentrate on my studies by sharing academical opinions and giving helpful feedback.

I would like to thank My housemate in Ireland is Mr Yoo Taehwan who shared valued work time that made me stronger than ever in life mindset.

Lastly, Huge thanks to Mr Ju Young Min(Managing Director/Hansol Logistics) and Mr Ahn Jung Il(Samsung SDS) working with me and motivated me to work in Malaysia. Most importunately, the Memory of Eagle shot on 16th of May in Tasik Puterie Golf Club, Malaysia will be unforgettable in my life.

Acknowledgements

First, and most of all, I would like to thank Professor Justin(RM1&2, International Business), for his expertise, assistance, guidance, and patience throughout the process of writing this dissertation. Without your help, this paper should not have been possible. I would like to thank my class members, Artur and Praveen, for their support, suggestions and encouragement. Thank you to Professor Mark and Professor Ivan, for many generous and helpful suggestions.

I'd like to extend my sincere gratitude to the supportive faculty in Business Graduate. I would like to give special thanks to Café Artur where I had a great breakfast every morning.

It was my pleasure to attend your informative classes that widened my academical knowledge and practical strategies and tactics for the future profession. I would like to express my deepest respects and efforts for all you named below

Mr.Justin(IS&RM1,2),Mr.Ivan(MF&RBM_Legal),Mr.Lewinski(LM),Mr.Mark(SHRM&INVT),Mr.Klaus(EP),Ms.Angela(ME),Ms.Debora(GM),Ms.Racheal(DB),andMs.Grainne(RBM_Ethic)

They have each made my time at Griffith College Dublin more positive and enjoyable.

Last, of all, I would like to thank all of my friends and everyone else who helped contribute to assignments and projects; and to my best friends Artur and Praveen, thanks for keeping me company on long walks.

Abstract

A study on the effects of the buyer-supplier relationship on purchasing and satisfaction in supply chain management in Malaysia

Hansoo Bok

Due to the competitive environment in the Business industry, most firms try to establish and maintain a long-term relationship and cooperation between supplier and buyer that allow companies to make more flexible strategies for better operations and management.

This study explores three main factors that are Relational aspect, Resource dependence, and transactional cost. Each factor has sub-sections such as commitment, trust, cooperation for relationship Aspect, information sharing for resource dependence, and long-term relationship orientation for tractional cost. This study will study the effects of the variables whether they have significant impacts on purchasing performance and satisfaction.

In this research, there are three hypotheses that five factors can induce positive purchasing performance. The fourth hypothesis is that positive purchasing performance affects positive purchasing satisfaction. Those studies will be analyzed through the survey.

A questionnaire survey was conducted among 100 professional employees of electronics, automobiles, drinks and so on in the industrial zone in purchasing departments where author work in Malaysia.

There are six hypotheses and Trust, Information sharing, long term orientation has positive influences on purchasing performance. On the other hand, Commitment and cooperation were identified which had no positive impact on purchasing performance. Besides, purchasing performance has a significance in purchasing satisfaction according to this study.

In conclusion, buyers should take recommendations from this study that they should try to improve trust, information, and long-term orientation for retaining a good relationship with a supplier to reduce transactional cost and work more flexible to avoid risks such stock-out and overstock situations.

For trust, an increased number of having meetings will help buyers have interactions with suppliers and exchange business opinions. About information sharing, ERP system will help buyers to share concise information with suppliers that avoid mistakes of quantity orders and communications. Lastly, Long term orientation can be improved by investing in supplier's production facility that makes the suppliers increase more dedication to supply planning for the buyer.

Table of Contents

Candidate Declaration.....	2
Dedication.....	3
Acknowledgements.....	4
Abstract.....	5
1. Introduction	
1.1 Overview.....	9
1.2 Research Purpose.....	9-10
1.3 Significance of the Study.....	10
1.4 Research Objective.....	11-12
1.5 Structure of the Study.....	13-14
2. Literature Review.....	15
2.1 Overview.....	15
2.2 Importance of Buyer-Supplier Relationship.....	15-16
2.3 Helper Theory.....	16-17
2.4 Bensaou(1999) Theory.....	18-19
2.5 Factors of long-term relationship.....	19
2.5.1 Commitments.....	19-20
2.5.2 Trust.....	20-21
2.5.3 Cooperation.....	21-22
2.6 Information Sharing.....	22-23
2.7 Purchasing.....	22-24
2.7.1 Purchasing Objective and Function.....	24-26
2.8 Satisfaction.....	26-27
2.9 Investment.....	27
2.10 Risk-Sharing.....	27
2.11 Long-term Orientation.....	28
2.12 Supply Chain Management.....	29
2.13 Conceptual Framework.....	30-31
2.14 Conclusion.....	31-32

3. Methodology and Research Design	
3.1	Overview.....33
3.2	Research Philosophy and Approach.....33-34
3.3	Research Strategy.....34-35
3.4	Collection Primary Data.....36
3.4.1	Source.....36
3.4.2	Access and Ethical Issues.....37
3.5	Approach to Data Analysis.....37
3.5.1	Analytical Technique.....37
3.5.2	Nature of Data.....37-44
3.6	Conclusion.....44
4. Presentation and Discussion of the Findings.....45	
4.1	Overview.....45
4.2	Findings.....45
4.2.1	Assessment of Analysis Assumptions.....45
4.2.2	Assessment of Outliers.....46
4.2.3	Normality Test.....46-48
4.2.4	Multicollinearity Test.....48-49
4.2.5	Demographic Information of The Respondents.....49-52
4.2.6	Testing the Model Using Regression Analysis.....52
4.2.7	Effect of the Relational Aspects of Purchasing Performance.....52-53
4.2.8	Effect of Information sharing and long-term Relationship Orientation on Purchasing Performance.....54-56
4.2.9	Effect of the Purchasing Performance on Purchasing Satisfaction56-58
4.3	Discussion.....58-60
4.4	Conclusion.....60-61
5. Concluding Thoughts on the Contribution of this Research, its Limitations, and Suggestions for Further Research.....62	
5.1	Implications of Findings for the Research Questions.....62
5.2	Contributions and Limitations of the Research.....63
5.3	Recommendations for Practice.....64
5.4	Recommendations for Future Research.....64-65
5.5	Final Conclusion and Reflections.....65

◆ List of Figures

Figure 1: Helper's information-commitment framework

Figure 2: Buyer-supplier relationship portfolio

Figure 3: Role of the purchasing department

Figure 4: Expectation and outcome model in relationship

Figure 5: Research Onion

Figure 6: Research Model

Figure 7: Specimen (Trust)

Figure 8: Information Access

Figure 9: Survey sample of Trust

Figure 10: Survey sample of Cooperation

Figure 11: Survey sample of Commitment

Figure 12: Survey sample of information sharing

Figure 13: Survey sample of long-term relationship orientation

Figure 14: Survey sample of purchasing performance

Figure 15: Survey sample of Satisfaction

1. Introduction

1.1. Overview

Due to the rapid globalisation, companies realise that the buyer-supplier relationship plays a significant role in stabilising business model such as productivity and reducing transactional cost. Due to the need for the cost reduction and reliable procurement, this research is looking for a significant relationship on how factors (transactional cost, resource independence, and relational) effect purchasing performance and satisfaction.

1.2. Research Purpose

This research will focus on the effects of a buyer-supplier relationship on purchasing performance and satisfaction in the Malaysian industry. Three major variables are relational view, resource dependence, and transactional cost will be identified.

The specific focuses in this research will be identifying sections of each major variable. They are commitment, trust, cooperation, information-sharing, long-term orientation. And will identify each of them how it affects purchasing performance and purchasing satisfaction.

The reason for this study is because a buyer-supplier relationship can have huge impacts on a company's financial and operational profits and benefits over time.

Cunningham and Homse, (1982) state that Companies that benefit each other have various type of relationship with different suppliers. Greis and Kasarda(1997) state that flexibility-based partnerships between inter-firms are key to the competitiveness of a supply chain. Hence, purchasing performance and satisfaction are improved where buyer and seller relationship is more flexible. For, example, Toyota, Japanese number one auto-maker has remained a top-selling company over the decades by using its special product system, Toyota Production System. But, one of the essential factors that played a significant role in supporting the system such as raw materials and the transport was a good buyer-supplier relationship. In this point of view, many organizations have interests to achieve their goals of profitability based on supply chain flexibility and gain a competitive edge by improving a buyer-supplier relationship.

Below are the six research questions that will lead you to further understanding of this study.

Research question 1: How Commitment affects purchasing performance?

Research question 2: How Trust affects purchasing performance?

Research question 3: How Cooperation affects purchasing performance?

Research question 4: How long-term orientation affects purchasing performance?

Research question 5: How information-sharing affects purchasing performance?

Research question 6: How purchasing affects purchasing satisfaction?

1.3. Significance of the Study

These questions in *Research Chapter* are significantly essential to conduct a study on purchasing performance and satisfaction. Moreover, they are used to design a framework to provide purchasing approaches based on a buyer-supplier relationship. Jap(1999) stated that collaboration is worthwhile, with its coordination efforts and investments leading to enhanced profits and the realization of competitive advantages in highly performing supply chain. Based on these conceptual ideas, the research according to diverse manufacturing segmentation and firm sizes as control variables will be conducted in Malaysia so that the study can identify similarities and differences between small-sized and big-sized companies. Also, it can reflect the effects according to a degree of a buyer-supplier relationship on significant meanings of purchasing performance and satisfaction in supply chain management.

1.4. Research Objective

In the past, companies mainly focused on R&D and quality rather than the management of marketing and distribution. Therefore, companies relied on a limited number of clients and controlled management of suppliers based on the captive buyer position. But, these days, the business environment is rapidly changing that requires buyers to have a strategic relationship with suppliers to be flexible and competitive in supply chain management (Dertouzos, Lester & Solow 1989). Based on buyer-supplier cooperative relationship, materials are stably supplied to buyer, this allows companies to improve a financial aspect such as transaction cost. Supplier secures re-sales, sales growth, and production stability. Furthermore, this long-term relationship allows buyer and supplier to spot new business environment together.

With my five-year work experience as a purchasing manager, I was responsible for forty container-purchasing per month which I placed the orders according to company's annual plans on productivity and reduction of total cost, the raw material was purchased from Japan and Secondary material from South Korea, Singapore, Vietnam, China and Senegal in the wig industry. This job position required to analyse data on consumption, trend, quality, quantity, and routing analysis to place bulky orders to international suppliers. In general, communication was addressed based on a hostile-business relationship with local and foreign suppliers. The six questions in this research stem from the previous work experience regarding a buyer-supplier relationship.

As a purchasing manager, I noticed that procurement performance and satisfaction might be significantly affected by the buyer-supplier relationship. In this position, back-order issues and stock-out happened due to many reasons such as failure of monthly-consumption forecasting, strike at ports and airports. Besides, because of the discrepancies in quantity, quality, and design, an unexpected shortage took place negatively impacting supplies to production lines. Furthermore, a miscommunication caused the order quantity and design problems. These negative factors have disastrous impacts on shipping, production and sales plans causing a reduction of a company's profits and creditability issues with valued customers. Nowadays, to avoid any backorder, companies tend to secure their procurement channels in supply chain management by a partnership with international suppliers. Lou Gaoxiang(2009) stated that the view of the supply chain's importance has become the consensus of managers, and the profitability of enterprises is increasingly dependent on the overall competitiveness of their supply chain.

The issues that caused supply chain to be at risk were found as follows:

Issue 1: Back-orders and stock-out occur that has influences on production running. Therefore, the companies cannot meet shipping dates. It affects sales profits in the end.

Issue 2: Discrepancies of quantity, quality, and design, supplies cannot be made on time to production lines. It delays production planning that results in cancellation and quantity modification on smaller quantities within the available range.

Issue 3: Miscommunication takes place that causes administrative issues such as order sheets, languages, e-mails, fax and shipping, tax documents.

After going over research questions and above issues, Objectives that becomes clear based on the questions are:

Objective 1: Identify a relationship between Commitment and purchasing performance

Objective 2. Identify a relationship between Trust and purchasing performance

Objective 3: Identify a relationship between cooperation and purchasing performance

Objective 4: Identify a relationship between information sharing and purchasing performance

Objective 5: Identify a relationship between long-term relationship orientation and purchasing performance

Objective 6: Identify a relationship between purchasing performance and purchasing satisfaction

J.Hoyt and F. Huq(2000) stated that buyer-supplier relationships play an important role in an organization's ability to respond to dynamic and unpredictable change. Thus, research is worthy to be conducted to improve companies' sustainability based on a buyer and supplier relationship. Those objectives will be categorized into each perspective of the buyer and supplier. This study is mostly focused on what supplier's views from each question. The aim is to provide purchasing suggestions for buyers who work in Malaysia on how to approach their suppliers and improve supply chain management based on a buyer-supplier long-term relationship, supplying materials on time to production lines according to production planning and receiving high quality and right quantity.

1.5. Structure of the Study

In a bid to achieve the objectivity in this study, literature research and empirical research are conducted.

First, for the theoretical study and support, research model and hypothetical research questions based on advance studies, academic journals are created.

Second, For the Empirical research, the population who respond to this study's questions in Industrial park, Seremban, Malaysia where a researcher works all highly qualified professionals in purchasing work. Also, for data analysis, frequency analysis, validity analysis, factor analysis, and Multi-Regression Analysis for validity.

The scope of this research consists of five chapters as follows:

The first chapter that suggests research purpose, significance of the study, research objective, and structure of the study is an introduction

The second chapter that consists of the importance of buyer-supplier relationship, Helper and Bensaou theories, factors of a long-term relationship, commitments, trust, cooperation, harmony, information-sharing, purchasing, satisfaction, investment, risk-sharing and long-term orientation are literature reviews.

The third chapter is composed of the research design and analytical method. It suggests the methodology and research design, research philosophy and quantitative approach, research strategy, collection primary data, access and Ethical issues, approach to data analysis, analytical technique, nature of data based on questionnaire's design.

The fourth chapter consists of a presentation and discussion of the findings.

The fifth chapter consists of Implications of findings for the research questions, contributions and limitations of the research, recommendations for practice, and recommendations for future research is a concluding thought on the contribution of this research, its limitations and suggestions for further research.

- illustrates a whole research process as below

Chapter 1_Introduction	<ul style="list-style-type: none"> <input type="checkbox"/> Research purpose <input type="checkbox"/> Importance of the study <input type="checkbox"/> Research Objective <input type="checkbox"/> Structure of the study
Chapter 2_Literature Review	<ul style="list-style-type: none"> <input type="checkbox"/> Relational Aspects <input type="checkbox"/> Resource Dependence <input type="checkbox"/> Long-term relationship <input type="checkbox"/> Conclusion
Chapter 3_Research Design and Analytical Method	<ul style="list-style-type: none"> <input type="checkbox"/> Research Design <input type="checkbox"/> Philosophy and Quantitative Approach <input type="checkbox"/> Research Strategy <input type="checkbox"/> Questionnaire's Design
Chapter 4_Presentation and Discussion of the findings	<ul style="list-style-type: none"> <input type="checkbox"/> Presentation <input type="checkbox"/> Discussion
Chapter 5_Implications of the findings	<ul style="list-style-type: none"> <input type="checkbox"/> Contributions <input type="checkbox"/> Limitations <input type="checkbox"/> Recommendations

2. Literature Review

2.1. Overview

The literature review mainly focused on transactional cost, resource dependence, and relational aspect. The significance of the buyer-supplier relationship, Factors of a long-term relationship and Long-term orientation are introduced to support this research's objectivity based on advance researches with theoretical frameworks such as Helper Theory and Bensaou Theory. The rest of the factors also play a critical role in underpinning research's relations are Risk-sharing, investment, satisfaction, purchasing performance, and Information-sharing are written as essential factors for a buyer-supplier relationship.

2.2. Importance of Buyer-Supplier Relationship

The first literature reviewed tells that nowadays, companies exert efforts on supply chain management which reduce total transaction cost in a bid to be more competitive. Also, to achieve financial goals to maximize net profits and efficiency in supply chain management, A buyer-supplier relationship is highlighted more than ever. Traditionally, a buyer was mostly in the lead of a meeting and decision-making process. However, the competitive market demanded buyers to have quicker responses to trend changes. For this reason, buyer-supplier relationship changes to a strategic relationship that accompanies a supply chain business model. Reducing transaction cost plays a significant role in increasing profits. First literature reviewed suggest that there are two ways that companies can realize it. The first model is a hostile relationship that a buyer is in a dominant position in meetings and negotiations such as pricing and transport. In contrast, the second model is a strategic buyer-supplier relationship that both sides do in collaboration with the flexibility of supply chain management. Harland(1996) stated that the management of the buyer-supplier relationship is a key factor in supply chain management. The successful buyer-supplier relationship enables companies to be free from concerns of slow inventory-turnover and quality management of materials. As productivity improved, labour cost continuously decreased. However, where the labour costs went down, material costs increased. For instance, to produce one plane in 1945, a material cost accounted for 40% in production

cost. The cost proportion became higher to 60% in 1955. From this change, cost reduction in purchasing materials is very crucial to maximize net profits.

Based on supply-reliability, McMillan(1990) stated that the good relationship between buyer and supplier generates good advantages and they are:

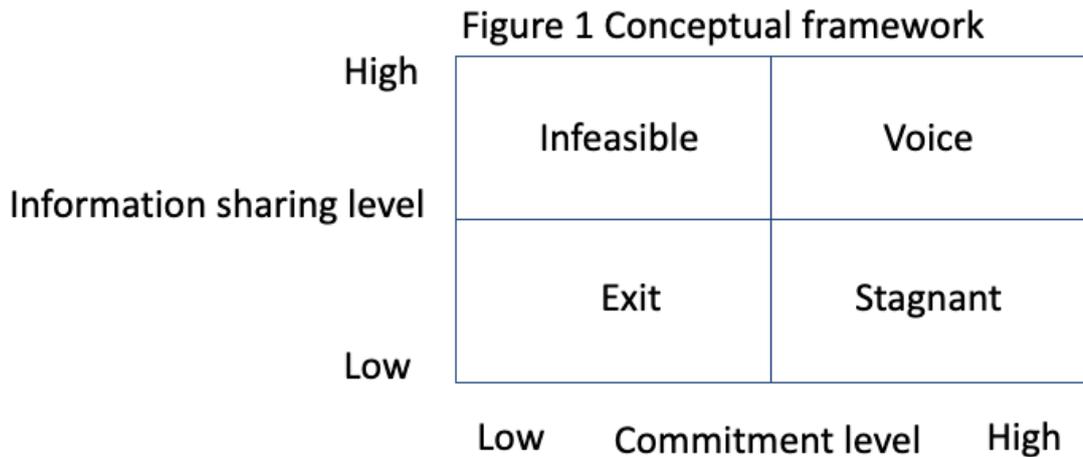
1. Better problem-solving
2. Reliability of supply and shipping
3. Better unit price and transaction cost
4. Sustainability of Production planning and operation
5. Improving marketing-efficiency
6. Optimal capacity planning and customer-oriented operational

Therefore, a buyer-seller relationship should be dealt with strategic respect. However, even if a buyer-supplier relationship plays a vital role in responding to dynamic or expected changes, the relationship that should be controlled is too much tolerance to mistakes from either side (Hoyt and Huq, 2000). Besides, good buyer-supplier relationship facilitates successful supply chain management because both sides make efforts to achieve common goals by which efficient and productive working ways are considered.

2.3. Helper Theory

Helper(1991) combines a Hirschman's conceptual framework describing a relationship based on competitive relationship(exit) and cooperative relationship(voice) with a Flaherty's framework illustrating information sharing level and commitment level. In terms of information sharing level, it is measured by contents and a substantial volume of sharing. The commitment level shows a level of implicit promise that affects business relationships by continuously purchasing.

Figure 1 Helper's information-commitment Framework



Helper that categorizes the framework into four sectors are:

1. Infeasible relationship: giving a sense to an existing supplier that buyer might find new supplier makes the existing supplier try to increase the commitment level
2. Voice-relationship: A cooperative relationship lead by a buyer when required to improve and solve issues in business
3. Exit-relationship: stage on finding a new supplier when troubled
4. Stagnant relationship: High commitment level, but required to improve information sharing level

Voice-relationship requires high commitment level because of:

First, extensive communication incurs significant transaction cost to keep the relationship per supplier.

Second, sharing confidential information should be fulfilled based on a high trust level

Third, both buyer and supplier gain tangible benefits through a collaborative relationship

Exit-relationship has a low level of commitment and information sharing whereas Voice-relationship has a high level of commitment and information sharing. Besides, a stagnant relationship has high commitment and low information sharing that makes problem-solving very hard.

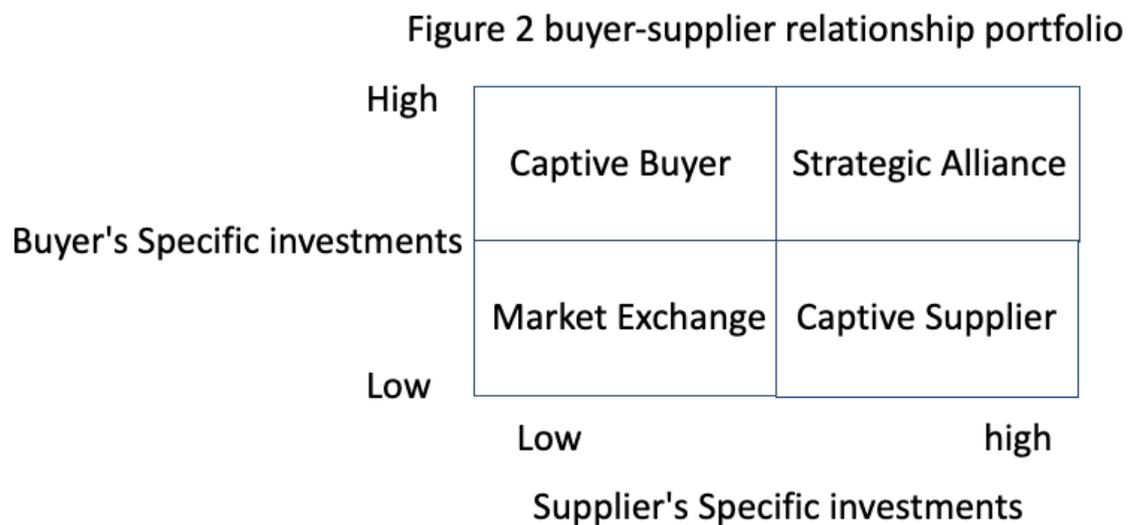
Helper's theory is meaningful information in this study to provide an understanding of how the commitment level works in a relationship related to question 1 as follows:

Question 1: How does commitment level affect the information sharing in purchasing. Then how is this role identified in strategic purchasing from a supplier?

2.4. Bensaou(1999) Theory

To improve the efficiency of supply chain management, Bensaou suggested a conceptual framework that has two main categories that are specific investments level of the buyer and specific investments level of the supplier. They are used to identify the position of a buyer-supplier relationship. The meaning of specific investments is the same as switching-cost. It includes all tangible and intangible costs when it switches. Based on the level of specific investments, it is divided into four that are Captive Buyer, Strategic partnership, Captive supplier, and Market exchange.

Figure 2 Buyer-Supplier relationship Portfolio



Strategic alliance's sector, it has a high level of specific investments (Switching cost) of buyer and supplier. In terms of product portraits, it plays a critical role in the final product that requires a high level of high purchasing capability of a buyer. Based on new technologies and skills, it requires a high frequency of design changes and customizing demands, in which, a high level of financial investments is required. In terms of marketability, high market growth supported by strong demands is in a market. Besides, because of its high competitiveness, the market is very unstable where many new competitors emerge with better-designed production. Supplier is equipped with a big-sized scale of business based on own technologies and own R&D department, from which, new advanced design, engineering, and productivity-focused facilities are developed.

Captive supplier's sector has a high level of Specific investments and a low level of specific investments of the buyer. In terms of portraits of products, it is well-known and made by

sophisticated technology which already reached a technological threshold on innovation and improvement. In terms of marketability, Demand is stable in a market that has a limited number of suppliers. However, it has a limited business area. For this reason, a buyer has its production facilities along with own technologies and skills. A supplier has powerful bargaining power over a buyer.

Captive buyer's sector has a high level of Specific investments and a low level of specific investment of a supplier. In terms of portraits of product, it is made by sophisticated technology innovated by a supplier. Due to the fast-tech trend from a customer in a market, it requires heavy capital and investment mostly financed by a supplier. In an aspect of marketability, there is a fast-growth business environment in a market- based on a high level of competition. Even if a supplier has own financial capacity and R&D capacity, supplier's bargaining power is low where highly competitive environment between suppliers can satisfy the demands of the buyer.

Market exchange's sector has low specific investments of a buyer and a supplier. In terms of product's portraits, goods are standardized in a market such as common goods, and the technology which already reached a threshold is used for the goods. It has less opportunity that change in design and customizing operation happens. About marketability, it has high competition due to many suppliers and high demands from a market. Most of the suppliers are small-sized which have no technology and skills and supply common goods.

The literature reviewed gives an idea of how specific investment level plays in determining a position in which side leads in a purchasing situation. This study is useful to refer to research question 2 as follows:

How does a buyer secure supplying channels according to Bensau's buyer-supplier framework from a supplier?

2.5. Factors of a long-term relationship

2.5.1 Commitments

The commitment to a relationship is defined as scarification made by both sides to maintain a stable relationship. Supplier tries to supply materials with higher price whereas buyer tries to buy with a lower price (Williamson, 2010) But, even though each side has a different view of price approach, they negotiate to compromise based on scarification resulting in building good relationship and partnership. Therefore, commitment is one of the significant factors of a long-

term relationship. Bakhshi et al. (2011) stated that commitment plays a critical role in generating cooperation between a buyer and a supplier. Moreover, it brings better royalty that brings long-term business based such as stable trading.

Dwyer et al. (1987) and Moorman et al. (1992) defines a relationship process by 4 steps as follows:

(1) Awareness

It is a phase of getting aware of a partner for doing business that both parties try to be seen as friendly and hospitable as business partners. However, there is a lack of interaction between the parties.

(2) Exploration

It is a phase of trying to build a trading relationship in consideration of liability, responsibility, benefits, and trading.

(3) Expansion

It is a phase that profits gradually increases by growing interaction and dependence.

(4) Commitment

It is a phase of improving a buyer-supplier relationship by mutual investment and mutual dependency.

(5) Dissolution

It is a phase that a relationship ends when either of a party does not continue a relationship.

2.5.2 Trust

According to Johnson-George and Swap (1987), The definition of trust is to take the present and potential risks in a relationship. This is a very rare characteristic common to all trust situations. Trust is a factor in which a buyer and a supplier are reliable to each other as business partners. Based on the trust of each partner's capabilities such as quality, quantity, delivery, and billing, buyer and supplier develop their business as one organization so that both companies can remain competitive in a market. According to Dewani & Sinha(2012), trust is a high level of integrated conviction that consists of authenticity, responsibility and mutual profit. On this

level of trust, a buyer and a supplier cope with uncertainty and unexpected situation through the win-win decision-making process (Anderson & Weitz, 1992).

Moonrman et al., (1992) states that trust between buyer-supplier in business can generally be defined that both parties do business based on confidence to rely on each other. In case a company already builds a good relationship with a trading partner, each firm in collaboration with its partner gains more benefits that result in generating better efficiency (Anderson and Narus, 1990). Therefore, the benefit of trust contributes to a long-term buyer-supplier relationship that is considered as a primary process to improve cooperative level (Park, 2011).

According to Schurr & Ozanne(1985), they defined trust as a degree of faith that business partners are going to comply with transactional rules in business. A buyer-supplier relationship can be created and improved based on trust that is the profound phase of long-term relationship. Successful interactions based on trust promote them to exchange business information more often than before. This then brings them informative knowledge on how to draw trust from their business partners with each other.

Benevolence is defined that a trustee is willing to do a good to the trustor. In this regard, instead of profit-oriented behaviour, a trustee wants to help without any intrinsic reward. According to Hoaland and Colleagues (1953), benevolence plays a significant role in identifying the level of trustworthiness.

McFall(1987) describes that the relationship between integrity and trust consists of the conception that the trustee keeps a promise with trustor. Besides, consistency of commitment, trustful communication behaviour, and faith are factors for the trustor to judge a degree of trust.

Ability is one of the most essential factors for trust. It is composed of skills, competencies and characteristics which influences some particular areas. Many studies have discussed as what affects trust. According to Cook and Wall(1980). He considered ability plays an important role in trust. Furthermore, Yale research found previously that expertise was a critical characteristic of the trustee.

2.5.3 Cooperation

Cooperation is a factor of which buyer and supplier do business activities in collaboration with each other as one organization such as problem-solving situation and project work. In this process, buyer and supplier share internal and external resources regarding information and

human resources to have a competitive edge in business. In the case of companies not based on cooperation and understandings, buyer and supplier only pursue individual's profits. On the other hand, in collaborative business, both sides will take into consideration to maintain a long-term relationship for future business. In supply chain management, cooperation is very essential to meet customer's needs in the market. Soosay(2008) defines cooperation as activities that brings a diversity of benefits between supplier and buyer. Also, he states that cooperation plays a critical role in satisfying both parties by generating profits and better efficiency of resource management. This results in building trust and willingness to improve a buyer-supplier relationship. In the event supplier does not supply material on time, it causes issues on manufacturing planning. More importantly, it affects customers' satisfaction (Divakar et al., 2005)

This literature reviewed emphasizes that Trust, Cooperation, and Commitment build a long-term relationship as essential factors. It is related to the question 5 is as follows:

- How quickly can a delivery be made to a buyer in urgent cases in a cooperative relationship?

2.6 Information-sharing

In general, information-sharing is conducted through a diverse communication channel such as exchanging documents and meeting (Jessica & Monica, 2012). Also, Ertug et al. (2013) state that information-sharing for partnership plays an essential role in building trust that allows both parties to have fair trades. It also improves cooperation. Nowadays, the Electronic Data Interchange system is used for people in business to communicate with each other. Furthermore, Because of IT advancement that exchanging information becomes easier and more accurate, which brought the following studies on information-sharing of inter-organization. About the sharing-information of the buyer-supply relationship is divided into inter-organizational partnership: IOP and Inter-organizational system: IOS (Nicolaou et al.,2013 & Kim et al.,2010). To sustain a long-term business model, sharing-information plays an important role in long-term profits.

This literature enhances an understanding of the role of information-sharing plays in communicating between buyer and supplier. In particular, (CANIËLS et al.,2010) state "The Presence of trust and commitment is essential for a successful relationship.

This literature reviewed will give questions are:

- Does a buyer-supplier relationship help both sides adapt to a changing business environment?
- Which type of stance should be taken to have a good buyer-supplier relationship?
- What factor that can improve a responsiveness level in information-sharing should be considered?

2.7 Purchasing

Purchasing is an essential activity to buy the right quantity and quality of materials at a reasonable price. However, in terms of a purchasing department in the manufacturing sector, purchasing activities play a vital role in buying the best quality of materials at a lower price to supply to the production department in time. According to Lamming & Hampson (1996), in the event supplies are not available on time to a production line, production has huge negative impacts on which productivity significantly goes down. The procuring activities are implemented based on technology, quality, response, delivery, cost, commitment, management, and environment. Also, Analysis of the purchasing market and business environment is required to strategically supply materials and equipment. Nowadays, supply chain management is used in companies to utilize internal and external resources. This type of management includes materials, human resources, and services so that companies maximize the efficiency of stock management that contributes to financial profits. Young H. Lee(2005) stated that the management of a buyer-supplier relationship should be based on a large framework of purchasing strategy. Moreover, the purchasing strategy must be managed in a way a buyer and supplier relationship are improving.

Figure 3 Role of a Purchasing department

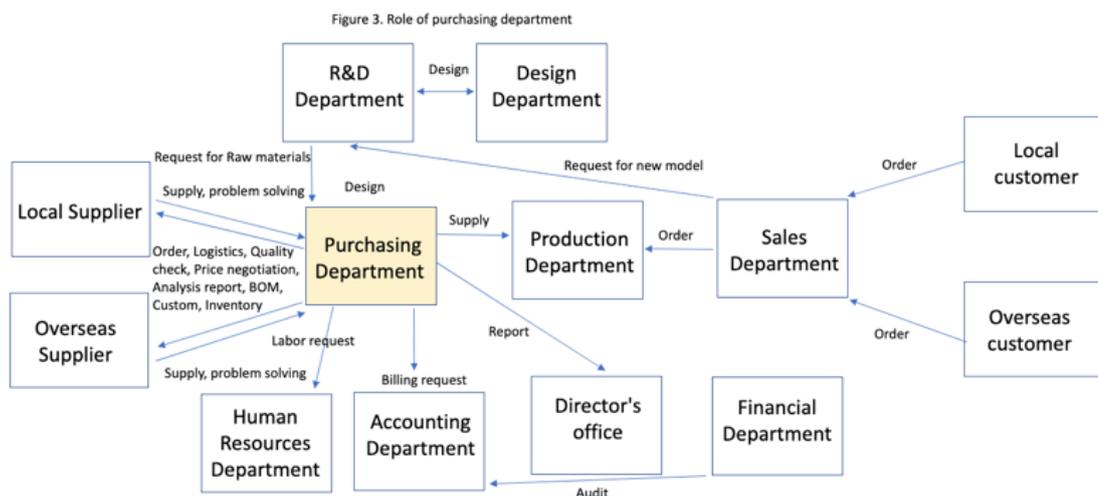


Figure 3 illustrates that a purchasing department interacts with suppliers and other departments. Production department relies on supplies from a purchasing department, in which, purchasing - planning should be timely implemented to avoid any risks at supply chain management.

This literature provides relevant information on the importance of purchasing activities that affect a company's profit and business stability.

Anderson(1998) define purchasing activity as an essential factor in business giving four reasons as below:

- 1) purchasing expenditure in business accounts for 30% in the service sector, and 50% in the manufacturing sector.
- 2) According to the first reason, financial profit is hugely affected by purchasing activity. For example, 5% improvement of reducing purchasing cost that is a similar financial effect in 20% sales increase.
- 3) Purchasing activity also has effects on profitability by outsourcing particular materials
- 4) Purchasing activity plays a role as a mediator mediating between other departments by reorganizing the purchasing process.

2.7.1 Purchasing Objective and Function

The objective of purchasing is basically to procure quality materials and quantity. Most importantly, purchasing activity is closely related to financial achievement in the company. For this reason, low price with high-quality service such as quantity, delivery time is what buyers focus at work. Main objectives for purchasing work are as follows:

- 1) Supply materials on time for companies to operate SCM channel
- 2) Pursue low price and high quality from suppliers
- 3) Smartly set purchasing planning to minimise financial losses from purchasing investment
- 4) Discover competitive and reliable suppliers
- 5) Retain a sustainable relationship with suppliers
- 6) Try to integrate communication channel with other departments

- 7) Develop human resources and educate workers in the Purchasing department
- 8) Develop an efficient process with low operation cost to achieve above seven objectives.

Zenz(1981) categorises purchasing objective to the continuity of production, sustainable quality, removing unnecessary expenditure, and internal harmony. In this regard, purchasing activity plays a significant and huge role in saving cost in company governance and operation.

To support the purchasing functions mentioned above, there are two famous theories.

- 1) Gadde and Hankansson(1993) Theory

According to the theory, three strategical roles are 1) rationalisation function,

- 2) development function and 3) Structure-function.

First, the purchasing rationalisation function is that workers who are related to purchasing work always have routines to reduce costs from purchasing activity. Namely, Data analysis should be thoroughly implemented to make decisions on what, how, how many or much, where, and when to buy materials. In the decision-making process, Decision makers always consider the supplier's quality and service and cost to reduce purchasing cost. Once the decision is made, the company will try to make a good buyer-supplier relationship to secure stable cost and procurement channel in the long-term view.

Second, about development function, as time goes by, production specialisation and segmentation have been evolving. For this reason, whereas purchasing decision was made for products or materials already commercialised, buyers should proceed purchasing decision-making process in collaboration with suppliers. The biggest reason is a rapid change in consumer behaviour and cooperation enables buyers to shorten development lead-time. Also, from suppliers, brilliant ideas can be obtained in the coworking process.

Third, Structure-function means that companies appoint one or more suppliers. In doing so, purchasing activity has an influence on supplier's structure over time. And the

companies should handle the situations in a smart way to have a stable procurement channel.

2) Leenders and Fearon(1993) Theory

The theory defines purchasing activity as follows:

First, 10%-unit cost saving from purchasing activity brings 10% sales profit which means purchasing function plays a role as a profit creator.

Second, 10% spending saving from purchasing activity result in reducing 10% stock asset which means purchasing function plays a role in improving ROA(Return of Asset)

Third, Purchasing activity functions as an information collector about price, availability, new supply channel, new products, and new technology.

Fourth, purchasing activity minimises in productivity of production operation such as re-touching process, defect items by supplying quality materials to production lines.

Fifth, supplying quality materials means companies provide customers with quality products that retain a good relationship in a long-term view.

Sixth, purchasing activity can maximise profitability in the same line with the company's goal based on middle and long-term strategies.

2.8 Satisfaction

The general meaning of satisfaction is an agreement or cooperation of actions and ideas. In the manufacturing sector, a meaning of satisfaction generates re-purchasing based on trust that meets customer's expectations such as quality and service. Satisfaction is a multidimensional concept which customers experience feel in processes on purchasing, comparison, and evaluation; Therefore, two aspects during the purchasing should be included expectations on being a process of buying and emotions that consumers feel after purchase. Richard L. Oliver (1980) stated after his research on profession satisfaction, life satisfaction, self-satisfaction, Satisfaction is determined by a perceived discrepancy between expectation and outcome.

Figure 4 Expectation and Outcome Model in Relationship

Figure 4 Expectation and Outcome model in satisfaction

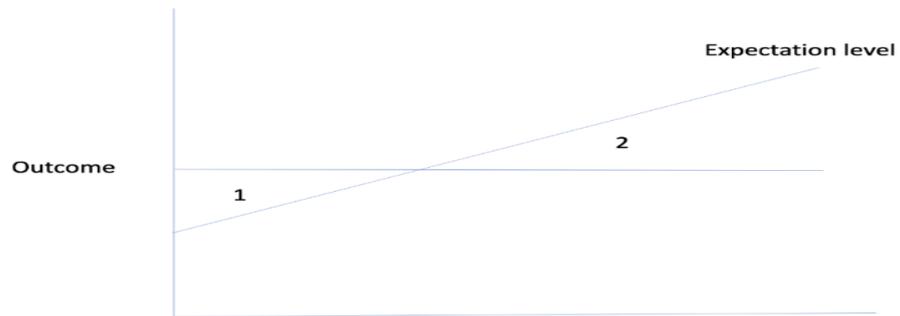


Figure 4 illustrates that No.1 is a satisfaction area whereas No.2 shows an unsatisfaction area.

This literature reviewed is related to a result based on questions. This part gives on conceptual ideas on what factors affects a buyer's satisfaction that can be applied to this study.

2.9 Investment

Hummels & Timmer(2004) stated that Investment is affected by the level of a company's trust, profit-confidence, and attractiveness. The most essential factor is a trust that attracts investors in buying its stocks. An investor takes many factors before into consideration for his investment. But trust is the most considered in the decision-making process. Trust cannot be easily earned because of uncertainty which affects decisions and relationship in business (Dodd, 1994)

This literature reviewed is related to the question as follows:

- What level of commitment and trust makes a supplier invest in production facilities to have better capacity?

2.10 Risk-sharing

Studies of risk-sharing are divided into the risk-shifting hypothesis and the risk absorption hypothesis (Asanuma and Kikutani, 1992) risk-shifting hypothesis is an assertion that a buyer shifts a part of the financial risk to a supplier by overwhelming power according to market fluctuations. First, in case of many orders demanded in a market, a buyer increases the number of its orders to supplier whereas, in case of a small number of orders demanded, the buyer decreases the order quantities to reduce expenditures that stabilizes company operation. Second, the risk-absorption hypothesis is an assertion that a buyer maintains a friendly relationship with a supplier by taking a part of the financial risk that brings a better commitment to supply loyalty from the supplier.

This literature reviewed in risk-sharing is related to a research question as follows:

- What level of financial risk-sharing can be taken?
- How much can a supplier reduce a unit cost for a buyer in an economic downturn?

2.11 Long-term orientation

Long-term is an essential element of the transaction cost. An inter-term relationship requires two parties to take a long-term point of view of the relationship. It is a core strategic tool that a supplier and a buyer cooperate based on the long-term relationship.

Kelley(1983) states that long-term orientation is distinct from the longevity of a relationship. Long-term orientation seems to be the best indicator of its closeness. Anderson and Weitz(1992) define the meaning of the long-term orientation as a companies' willingness to make short-term sacrifices to have long-term benefits of the relationship.

Just in time(JIT) purchasing is a good example of the traditional Japanese buyer-supplier relationship that epitomizes a small supplier-based and long-term relationship in a lean manufacturing circumstance such as reducing inventory, delivery lead-time. And it improved delivery flexibility and quality. Manoochehri(1984) states that a credible relationship with fewer suppliers who shorten the supplier chain is significantly important for successful purchasing.

Long term orientation brings cost-saving benefits through stable procurement channel. As for the company, the cost-saving helps to improve competitiveness against its competitors in the market such as providing cheaper price to customers. When the long-term relationship is retained based on long term orientation, there are benefits as follows:

First, through the long-term relationship with customers that the company provides a competitive price, companies can increase cross-sales and make a customer buy again.

Second, Long term relationship enables companies to pile customer's behaviour and trend so that new ideas and sample test opportunities will be obtained.

Third, long term relationship and orientation create new business opportunities from customers that its competitors have difficulties of doing the same business again the companies with a long-term relationship.

2.12 Supply Chain Management

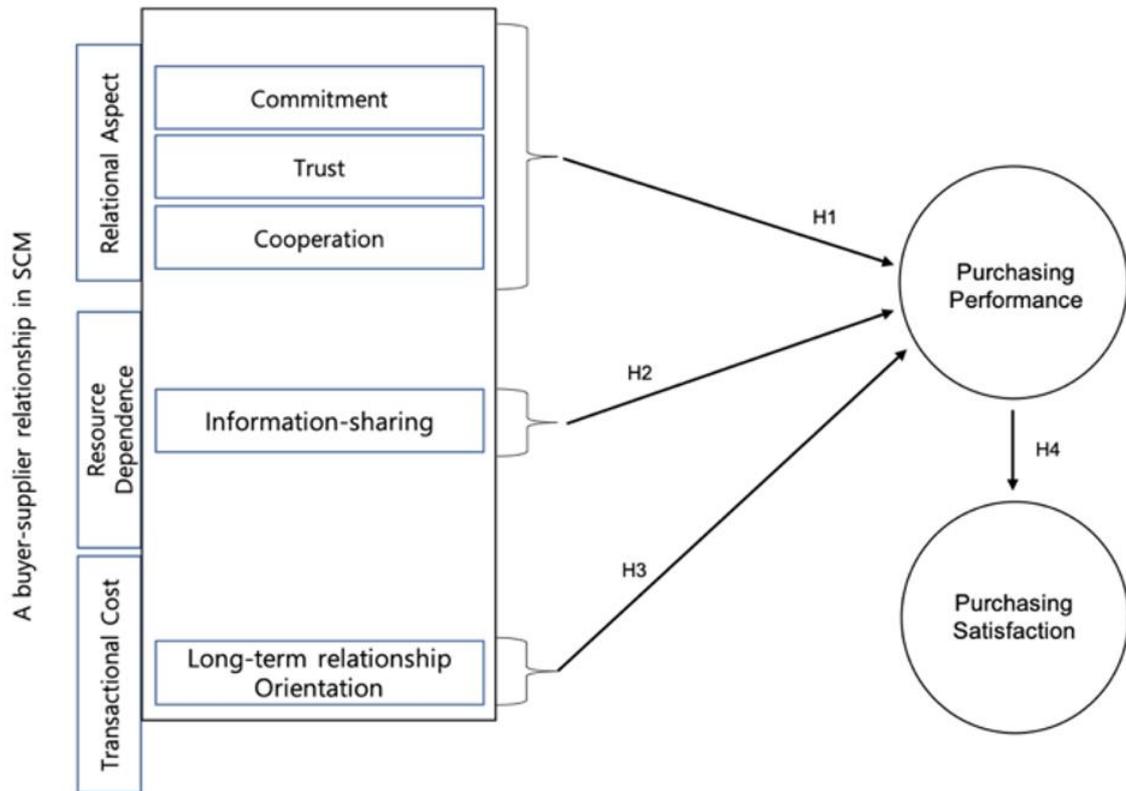
Tan et al., (1998) defines Supply chain management (SCM) as management which includes raw material supply, logistics, stock management, and procurement activities. He also claims the importance of optimisation and efficiency for achievements with a partnership. According to Chopra & Meindl(2002), to maximise SCM's benefits, information, products, capital flow between buyers' companies and suppliers' companies should be shared and managed.

In fact, in the supply chain where manufacturing business and distribution business are interlinked each other. Therefore, SCM strategies must be considered integrated so that buyers maximise the efficiency of securing materials as well as profits by reducing logistic cost and transactional cost.

Tan(2001) states that in an aspect of purchasing in SCM, purchasing activities/procurement focus on improving the productivity of production and reducing a storage cost in the short term view. Also, In an aspect of logistics, to reduce stock level, the logistics in SCM plays an essential role in transporting materials on time.

2.13 Conceptual Framework

Figure 6 Research Model



This is the research's conceptual framework. Each main factor has sub-sections such as 1) relational aspect(commitment, trust, and cooperation); 2) Resource dependence information-sharing; 3)transactional cost(long-term relationship orientation). This study will focus on how the factors affect purchasing performance first and will find a result of how the purchasing performance will have impacts on purchasing satisfaction.

After writing a literature review about the topic, the reasons why independence and dependence variances are significantly important to improve purchasing performance and purchasing satisfaction.

First, According to hypothesis H1(Relational Aspect) shows that the variance has a positive effect on purchasing performance. From formal research, they all have a positive affect but, In this research conducted in Malaysia. there might be different outcomes compared to the previous study. After receiving its result, Buyers should know about what facts can improve a purchasing performance for the relationship with suppliers. Buyers then can have a smoother work process in collaboration with suppliers.

Second, Hypothesis H2(Resource dependence) illustrates information sharing has a positive effect on purchasing performance. The reason is that a level of information sharing plays an essential role in letting buyers predict and prepare purchase orders so that they can purchase materials without overstock and shortage. In doing so, the well-organised plan enables them to save transactional cost and storage cost. According to the outcome, buyers can refer to how important they should improve information sharing with suppliers.

Third, Hypothesis H3 shows that Long-term relationship(orientation) has a positive effect on purchasing performance. Long term orientation is significant between companies' buyers and suppliers. Both parties create business opportunities by having great understandings and showing sincerely commitments to help a partner when in difficulty. Without to say, the long-term orientation can make more investment from buyers in the aspect of suppliers. On the other hand, buyers also can receive a good quality of materials and on-time delivery can be made that suppliers pay huge attention to buyer's orders.

Fourth, According to H4, purchasing performance has a positive effect on purchasing satisfaction. Satisfaction is one of the most essential facts for the next purchasing behaviour. This study will identify the outcome of purchasing satisfaction if the dependent variance is positively affected by purchasing performance.

This research model simply gives an idea for readers to comprehend research questions' directions. 1) Relational part(Trust, Commitment, Cooperation), 2) Resource Dependency(Information sharing), 3) Transactional Cost(Long term orientation) are independent variances. 4) Purchasing performance is a dependent factor and also independent variance for purchasing satisfaction.

2.14 Conclusion

The first literature reviewed shows the importance of a buyer-supplier relationship required than ever due to a competitive market environment. It includes a past study about proportion changes of material cost from 40% to 60 out of the total product cost between in 1945 and 1955 that suggests the reason why purchasing work should be well-organized based on a buyer-supplier

relationship. Also, Helper theory and Bensaou theory are reviewed to help understandings of the correlations between information sharing level-commitment level and Buyer-supplier's investment levels (Switching cost) enabling to identify a buyer-position. The two theories give frameworks on which factors in a buyer-supplier relationship should be improved for a procurement related to research question two.

The second literature reviewed covers the essential four factors of a long-term relationship that are commitments, trust, cooperation, and harmony playing a critical role in having a competitive edge in supply chain management. Moreover, this review reminds me of academic knowledge on how they impact financial performance and satisfaction. In particular, the information-sharing part that a buyer must improve the most for proactive purchasing planning is relevant to research questions on how it plays a role in an unexpected business changing environment. Harmony is mentioned as a relational view because the factor is not commonly dealt with within Malaysia. Through this research, I'd like to identify the role of Harmony if it plays a significant role in a buyer-supplier relationship in the manufacturing industry in Malaysia.

The third literature reviewed to incorporate a role of purchasing that this part will be used to identify outcomes based on survey questions is essentially crucial, a definition of satisfaction related to a future analysis giving an expectation and outcome model in satisfaction so that the author learnt an academic knowledge on how the satisfaction level is made between outcome and expectation, and risk-sharing related to a research question 4 about how the factor plays a role in the risk-absorption can be made by a supplier according to a buyer-supplier long-term relationship. Besides, long-term orientation in transactional costs shows that long-term relationship requires sacrifices from a buyer and a supplier to have long-term benefits that a supplier reduce switching cost, shortened supplier distances, and efficiency of delivery flexibility. The information-sharing part that a buyer must improve the most for proactive purchasing planning is relevant to research questions on how it plays a role in an unexpected business changing environment.

3. Methodology and Research Design

3.1. Overview

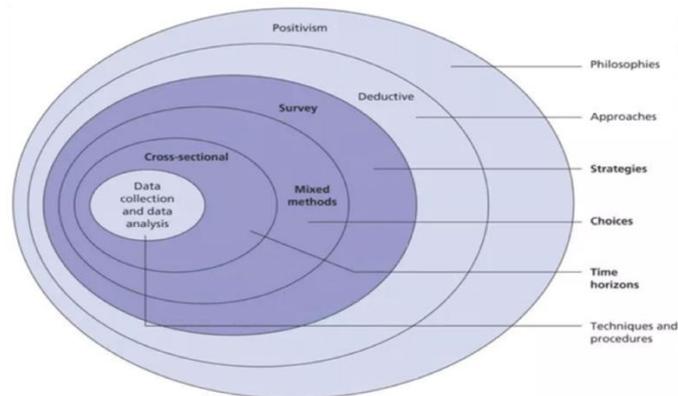
The development of this research based on research onion will be used to give the guideline and each part of the development will be discussed in the next chapters.

The research model of this study shown as Conceptual Work Frame, each major variable will be identified to draw significant meanings. The major variables are transactional cost, resource dependence, and relational aspect. Each variable has sections related to research questions.

3.2. Research Philosophy and Approach

The development of this research based on research onion will use to give the guideline and each part of the development will be discussed in the next chapters. According to Collis & Hussey (2003), Master's students need to have greater understandings of research philosophies.

- Figure 5 Research Onion



Business circumstances are significantly complicated and the relationship between buyer and supplier in the supply chain is gradually developed by collaborating each other that results in minimizing risks and improving supply chain efficiency. This leads both companies to better financial profitability and better partnership, in which, the main influence on this research is the Positivism philosophy. The reason is that most formal studies of a buyer-supplier relationship

are done by qualitative approach rather than a quantitative approach. Positivism is closely allied with the use of a quantitative research method Chua (2019).

The author also has not found quantitative approach-based studies. According to Collis & Hussey (2003), The reason is difficulty in contacting professional employees and limited time and a short length of a dissertation. In contrast, the qualitative approach would allow formal researchers to free from difficulties. This quantitative research will gather data from professionals in diverse companies considering a diversity of segments such as duration of working experience, position, company sizes, preferences. Its analysis shows a buy-supplier relationship development and co-relation in commitment, trust, cooperation, information-sharing. It also tells how each variable affect purchasing performance.

Quantitative analysis in a buyer-supplier relationship and even other research areas is essential. The relationship level that respondents feel cannot be measured. However, after globalisation such as free trade begun from late 1950, a buyer-supplier relationship was regarded as a significant academic area for companies to sustain their business and reduce transactional cost.

This is an exploratory study which is compatible with a deductive process, seeking to have understandings of why a long-term supplier-buyer relationship is important in the supply chain. Besides, the issues that the author mentioned in Aims Objectives will be mitigated by improving a relationship. All results from the hypothesis that will be positive are useful for employees in the purchasing department to make strategies for relationship development with their suppliers. Collican (1992) states that it is important that the researcher claims it does if the researcher adopts a positivist paradigm. It would include suggestions as well for further research in terms of how this qualitative-based research is applicable compared to formal qualitative approached researches.

3.3. Research Strategy

It is an exploratory study because it is devised to find new results compared to previous studies on a buyer-supplier relationship.

The research strategy is to maximize the efficiency of data collection and enables the researcher to implement plans for quality of data. The research strategy is a survey. Janicak, Christopher(2019) state that surveys are a useful way of a safety management system. This method allows the researcher to quantify each level of variations of a buyer-supplier relationship in the supply chain. A survey is an efficient way that a researcher makes a list of questions regarding Trust, Commitment, Cooperation, information sharing, and long-term

orientation. The survey design will be respondent-focused such as less than 5 questions per major variable so that respondent will not lose attention. Dillman(1978) states that respondent-friendly improves on survey completion by respondents. Besides, respondents feel comfortable when reading and responding to the same surveying questions with time, giving no time pressure to answer that will increase the quality of answers. The survey's specimen is as follows:

Figure 7 The following questions are about Trust

Note: Please Tick one of the five numbers where you feel right

No.	Questions	Strongly Disagree	Disagree	Neither agrees nor disagree	Agree	Strongly Agree
1	My supplier is always honest in purchasing transactions	1	2	3	4	5
2	My supplier that keep promises made to us is reliable	1	2	3	4	5
3	My supplier does not make requests outside of common sense	1	2	3	4	5
4	My supplier has enough knowledge on our products we deal with	1	2	3	4	5
5	My supplier tells truth what is wrong with which problems arise	1	2	3	4	5

3.4. Collection Primary Data

3.4.1. Sources

Primary data and secondary data will be used. As described above, this research adopts mixed-approach having an interview with 5-10 professionals to reflect their professional interests of questions that enhance the quality of the open questionnaire. It is also essential that most of the questions will be based on previous studies such as literature which are reliable than subjective-based questions. The sources can be from relevant highly peer-reviewed journals, articles, databases.

For this study, quantitative techniques will be used to gain data. Survey and questionnaires are the most common data collection method. Quantitative techniques are cheaper and take less time to collect the data. Furthermore, the method is much easy to analyse and compare findings compared to the qualitative method.

It is essential to have the right respondents to be reliable data after analysis. This survey will be answered by professionals in the purchasing department. Also, mixed-approach interviewing the employees will be used to make the questions professional and reliable.

Samples will be obtained from a range of organisations from diverse manufacturing industrial sectors so that this research's external validity and generalizability can be achieved, in which, the data includes professional respondents representing multi-national companies in Malaysia that run in a diversity of industries which use supply chain management. The specific area is Seremban Industrial Park where 4,503 SMEs and big-sized companies are running (mainly electronics/ and patrol-chemistry). Data collection(survey) will be conducted from 1st of March to 30 of March(30days) in the target places mentioned above. And the target respondents are between 80 – 100.

The questionnaires will be done through e-mail, fax and personal visits to the sites. To improve responsiveness, coffee vouchers and results of this research will be provided.

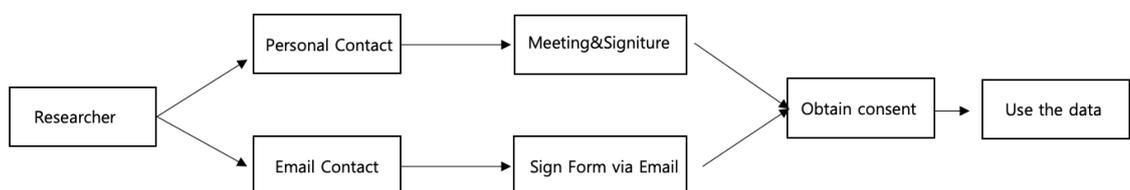
3.4.2. Access and Ethical Issues

To get access to data in this research, there are diverse strategies that will be used. This enables a researcher to ensure appropriate data collection.

The author used to work in the largest wig manufacturing corporate in Senegal where Author had a good partnership and a relationship with Malaysian suppliers will answer the questions. The suppliers have many sub-contract suppliers will be respondents for the survey. Another way of getting the data access is to contact Malaysian purchasing management association for online survey requests that will target the professional group of the employees to enhance the quality of the research. To have access, the researcher offers coffee vouchers, and share results of this study with the association. Many surveys will be done by employees in the purchasing department in Senawang industrial complex that a researcher will make personal visits through three weeks.

The potential ethic issue could be caused because of gaining the personal e-mail address for surveys through the Malaysian purchasing management association. However, to address the issue, a researcher will have a meeting with a manager of the information to have its confirmation and consent that ensure the usage of the email address. The data after the survey will be strictly protected such as anonymity and confidentiality. Bakardjieva and Feenberg (2001) state that each participant should understand and sign the mandatory consent form. Underneath figure illustrates a process of gaining consent for conducting the survey.

Figure 8 Information Access



3.5. Approach to Data Analysis

3.5.1 Analytical Technique

To achieve objectives, the data is analysed through three procedures as follows:

As indicated by Hair et al. (2014), evaluating the multiple regression model requires the following steps: (1) examining the F value to determine the statistical significance of the model, (2) checking the square of multiple r (R²) to determine if it is large enough, (3) examining the regression coefficients and their t statistics (beta coefficients) to determine the independent variables that have statistically significant coefficients, and lastly, (4) conducting the regression with the independent variables resulting from step three (3) to identify the influence of each independent variable. The above approaches of presenting the output of multiple regression analysis were applied in this study as demonstrated in the next sections.

3.5.2 Nature of Data

To identify the factor analysis of a buyer-supplier relationship, Principal component analysis will be conducted as a data extraction method.

The data plays an essential role in drawing significant meanings of the topic. The nature of data focuses on professional information from employees in the purchasing department. As described earlier, a couple of surveying questions will be from personal interviews to reflect the real working situation in the department. Cresswell(1998) states that qualitative method research questions begin with “what” and “How” rather than why.

To clarify understandings of what the questions in each variable are as follows:

- The following questions are about you and your organization

Questions	Contents				
Gender	Male	Female	Third sex		
Age	20-30	31-40	41-50	Above 51	

Work experience(year)	1	1-3	4-6	7-10	Above11
Job Position	Ordinary	Assistant Manager	Middle Manager	Director	Managing Director
Industrial type	Automobiles	Electronics,	Paper	Rubber, Plastic, Chemical	Drinks, Groceries
Transactional period with your partners?	Less 1year	Less 3 year	Less 5 Year	Over 5 year	
Employees	Under 500	1001-3000	3001-5000	5,001-10,000	Above 10000
Average sales(Euro)	Less than Euro 700,000	700000-4000000	4000000-8000000	8000000-24000000	More than 24000000

Before going to the surveying questions, questions of the demographic characteristics will be asked. The contents are Job position, business type, transactional period, numbers of employees, and average sales. The currency will be converted to the EURO when making a report.

Figure 9 Survey Sample of Trust

Note: Please Tick one of the five numbers where you feel right

No.	Questions	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	My supplier is always honest in purchasing transactions	1	2	3	4	5
2	My supplier that keep promises made to us is reliable	1	2	3	4	5
3	My supplier does not make requests outside of common sense in business	1	2	3	4	5
4	My supplier has enough knowledge on our products we deal with	1	2	3	4	5
5	My supplier tells truth what is wrong with which problems arise	1	2	3	4	5

The surveying questions focus on trust that identifies the level of honest, reliability, stability, understanding of products as a partner, and information transparency. Morgan and Hunt(1994)

state that trust is a concept related to reliability. Ganesan(1994) says that trust is composed of credibility and benevolence.

Figure 10 Survey Sample of Cooperation

Note: Please Tick one of the five numbers where you feel right

No.	Questions	Strongly Disagree	Disagree	Neither agrees. nor disagree	Agree	Strongly Agree
1	A long-term transaction with a supplier brings benefits to our company	1	2	3	4	5
2	My supplier voluntarily scarifies for our company	1	2	3	4	5
3	A relationship with my supplier is a long-term partnership	1	2	3	4	5
4	Generally, my supplier is a good partner for a business transaction	1	2	3	4	5
5	Our company hopes a long-term business relationship with my supplier	1	2	3	4	5

The surveying questions concentrate on cooperation. Level of cooperation between supplier and buyer will be identified based on relational questions. Min et al. (2007) state that cooperation is a company's perception of the joint effort between buyer and supplier.

Figure 11 Survey Sample of Commitment

Note: Please Tick one of the five numbers where you feel right

No.	Questions	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	We are willing to invest and support our partners for trade promotion	1	2	3	4	5

2	We can put up with the loss generated from a continuous transaction with our partner company to some extent	1	2	3	4	5
3	We maintain a close relationship with our partner company throughout the management	1	2	3	4	5
4	We actively support time, energy, and managerial resources to our partner company	1	2	3	4	5
5	We are fortifying partnership with our partner company in the main business unit	1	2	3	4	5

The questions focus on a commitment that identifies the degree of relational aspects such as support, sacrifice, efforts, and attention. Dwyer et al. (1987) suggested that commitment refers to an implicit or explicit pledge of continuity of buyer-supplier relationship. Prahinski and Benton(2004) state that commitment has a positive effect on performance.

Figure 12 Sample of Information sharing

Note: Please Tick one of the five numbers where you feel right

No.	Questions	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	We share empirical information such as success or failure cases with our partner company	1	2	3	4	5
2	We exchange information including consumer preference and buying behaviour toward the product with our partner company	1	2	3	4	5
3	We exchange information regarding the change of market structure with our partner company	1	2	3	4	5
4	We trust and exchange our partner company's information	1	2	3	4	5
5	The network is established for a smooth exchange of opinions with our partner company	1	2	3	4	5

The questions concentrate on information-sharing that identifies the level of the information-sharing of success or failure stories, marketing information, market structure, information

exchange, and communication channel. Mohr and Spekman(1994) state that information sharing refers that a buyer-supplier exchange critical information. Doney and Cannon(1997) say that sharing critical information provides a sense that the buy or supply can be trusted.

Figure 13 Survey Sample of Long-term Relationship

Note: Please Tick one of the five numbers where you feel right

No.	Questions	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	The worse managerial environment is, a long-term partnership is important	1	2	3	4	5
2	It is profitable for our company to maintain a long-term relationship with our partner company	1	2	3	4	5
3	We have common long-term management plans with our partner company	1	2	3	4	5
4	We will continually improve the quality of our partner company	1	2	3	4	5
5	We will improve the supply chain management in a long-term relationship with our partner company	1	2	3	4	5

The questions will focus on long-term relationship orientation that identifies the degree of importance of relationship, profitability, management plans, supply quality, and willingness to improving Supply chain management. Hahn et al. (1983) state that firms get benefits by placing bulk orders with few suppliers with long term contracts. Das and Teng(2000) Say that having long-term orientation can be seen as showing commitment to exchanging relationship.

Figure 14 Survey Sample of Purchasing Performance

Note: Please Tick one of the five numbers where you feel right

No.	Questions	Strongly Disagree	Disagree	Neither agrees. nor disagree	Agree	Strongly Agree
1	Do you think the relationship over time helps to reduce manufacturing costs?	1	2	3	4	5
2	Do you think that the relationship over time helps to supply good quality of materials?	1	2	3	4	5
3	Do you think that the relationship over time helps to reduce transactional costs?	1	2	3	4	5
4	Do you think that the relationship helps to reduce inventory?	1	2	3	4	5
5	Do you think that the supplier is generally satisfied with a relationship with our company?	1	2	3	4	5

The questions focus on purchasing performance that identifies the level of manufacturing cost, quality of materials, transactional cost, inventory, and satisfaction. Mentzer(2000) states that purchasing performance consists of inventory reduce, transactional cost reduce and quality improvement can be measured.

Figure 15 Survey Sample of Purchasing Satisfaction

Note: Please Tick one of the five numbers where you feel right

No.	Questions	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	My company is satisfied with the quality of materials	1	2	3	4	5
2	My company is satisfied with the supplier's logistic system	1	2	3	4	5
3	My company is satisfied with the information sharing level with the suppliers	1	2	3	4	5
4	My company is satisfied with the packaging	1	2	3	4	5

	quality					
5	My company is satisfied with price negotiation	1	2	3	4	5

The questions concentrate on purchasing satisfaction that identifies the degree of satisfaction of quality of materials, logistic system, information sharing level, packaging quality and price negotiation. Jarrell(1998) states that satisfaction that composed of service quality, logistic system and communication can be measured.

3.6. Conclusion

The potential results of this research will be a benefit for employees in the purchasing department and companies. A buyer-supplier relationship will be improved based on suggestions made from this study in Malaysia.

4. Presentation and Discussion of the Findings

4.1. Overview

The purpose of this quantitative study was to examine the *effects of the buyer-supplier relationship on purchasing and satisfaction in supply chain management among professional respondents representing multi-national companies in Malaysia that run in a diversity of industries which use supply chain management*. To meet the purpose of this study, a 5-point Likert-type survey was administered to Malaysia professional respondents representing multi-national companies. Data collected from respondents were analysed using the Statistical Package for the Social Sciences (SPSS) version 26.0. using Multiple Regression Analysis (MRA) was used. The findings of the analyses are presented based on the following research hypotheses.

H1: Relational Aspect has a positive effect on purchasing performance

H1-1: Commitment has a positive effect on purchasing performance

H1-2: Trust has a positive effect on purchasing performance

H1-3: Cooperation has a positive effect on purchasing performance

H2: Information-sharing has a positive effect on purchasing performance

H3: Long-term relationship has a positive effect on purchasing performance

H4: Purchasing performance has a positive effect on purchasing satisfaction

4.2. Findings

4.2.1 Assessment of Analysis Assumptions

The collected data from the quantitative process was logged in and prepared for the analysis process using the SPSS software (version 26). This step is necessary to ensure the smooth processing of the data analysis procedures and to identify any data deficiency in the collected responses. The following sub-sections discuss the procedures involved in the data preparation process which includes outliers' detection, normality assessment and multicollinearity test.

4.2.2 Assessment of outliers

The assessment and removal of unusual value for a single variable are known as outliers' assessment (Tabachnick & Fidell, 2013). The reason behind removing the outliers because they could result in non-normality of the data which could in turn influence statistical results (Hair et al., 2014). Meanwhile, Hair et al., (2014) suggested that outliers can be identified by their distinct and different characteristics such as extremely high or low values on a variable or falling at the outer ranges of the distribution. To detect outliers Tabachnick and Fidell (2013) suggested that, a case is an outlier if its standard score is range from ± 3.29 if the sample size is more than 80. In this regard, any Z-score more than 3.29 or less than -3.29 is regarded to be an outlier. In the case of the present study, the outcome indicated that the standardised (z) scores for the entire cases were between ± 3.29 . However, only one case was identified as an outlier in this study' data file, leaving 100 responses as the final dataset.

Table (4.1) Assessment of outliers

Constructs	Cases	Values
Trust	None	-
Cooperation	None	-
Commitment	None	-
Information sharing	None	-
Orientation	None	-
Purchasing performance	56	< -3.29
Satisfaction	None	-

4.2.3 Normality Test

After screening the data for missing values and outliers, it is suggested to assess the normality distribution of the data. Normality test reflects the degree to which the data distribution resembles the normal distribution (Hair et al., 2014). It is essential to ensure that the data are not too far from normal distribution because such issues of non-

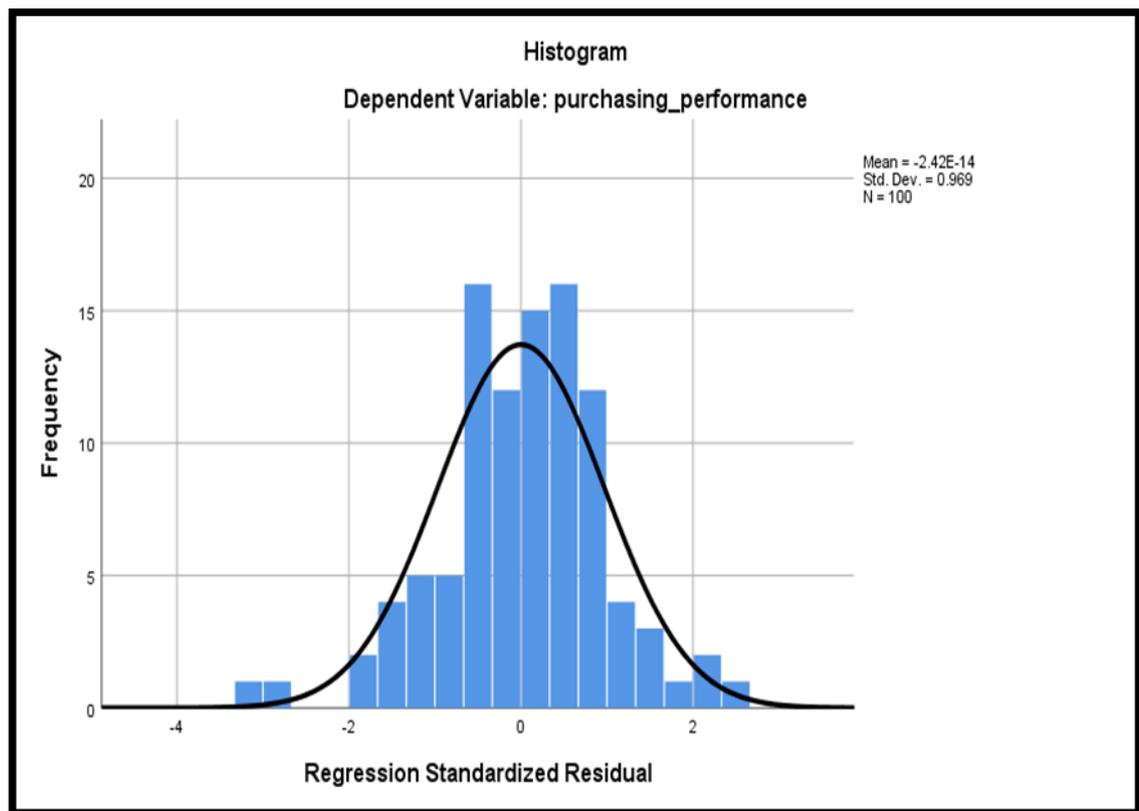
normally distributed data can be problematic in the parameters' significance assessments. Accordingly, two statistical measures were used to assess the normality distribution, i.e. skewness and Kurtosis. The skewness assesses the extent to which the variable distribution is symmetrical, while Kurtosis indicates whether the distribution is too peaked (Hair et al., 2014).

There are several rules of thumb which have been identified regarding the acceptable values of Skewness and Kurtosis. In this study, a rule of thumb proposed by Hair et al. (2014) was considered which accepts the skewness and kurtosis of the variable values if they fall in the range between -2 to +2. Table (4.2) shows the results of the normality test using Skewness and Kurtosis. It can be seen that the values of Skewness and Kurtosis for all variables fall within the acceptable range of normality -2 to +2.

Table 4.2 Normality distribution test

Constructs	Skewness	Kurtosis
Trust	-.609	-.244
Cooperation	-1.487	2.224
Commitment	-.950	1.551
Information sharing	-1.023	1.021
orientation	-.837	.941
Purchasing performance	-1.347	1.815
Satisfaction	-.695	.321
Trust	-.609	-.244

As shown in Table 4.2 above, the study's dataset demonstrated adequate normality issues with skewness and kurtosis observed as the values of both fell within the accepted range of <1.96. More so, one of the commonly used distributions in statistics is the normal distribution, while the standard deviation is the measure of how to spread out a normally distributed set of data (Tabachnick & Fidell, 2013). Meanwhile, normal distribution shape is determined by the mean and the standard deviation figure. Hence, the standard deviation for Purchasing satisfaction was 0.969. Therefore, the bell curve revealed almost normal distribution as can be seen from Histogram as below:+-



4.2.4 Multicollinearity Test

The multicollinearity test is highly recommended among variables before testing the proposed model. It specifies the existence of relapse in the correlation matrix and detects multicollinearity issues which arise when there are independent variables significantly correlates with each other (Hair et al., 2014). Multicollinearity issue is tested by examining the values of the tolerance and the variance influence factor (VIF). The VIF value represents the amount of variability of the selected variable explained by the other independent variables, whereas tolerance is the inverse of the VIF (Pallant, 2016).

To assess the multicollinearity assumption of the research model, the researcher performed the suggested diagnosis using SPSS (24). In this process, Tolerance and Variance Inflation Factor (VIF) values were provided. According to Pallant (2016), a tolerance value of 0.10 or lower and a VIF value of 10 and higher indicate a potential collinearity problem. Moreover, correlation values between the variables are less than 0.85 which indicates no multicollinearity (Pallant, 2016). Hence the results are shown in

Table (4.3) confirm that there was no multicollinearity issue among the variables in the present study.

Table 4.3 Multicollinearity test

	1	2	3	4	5	6	7	Tolerance	VIF
Purchasing Performance	1.000	.561	.335	.389	.593	.564	.422		
Trust	.561	1.000	.347	.379	.449	.516	.581	.563	1.778
Cooperation	.335	.347	1.000	.341	.299	.458	.269	.758	1.320
Commitment	.389	.379	.341	1.000	.431	.461	.321	.717	1.395
Information sharing	.593	.449	.299	.431	1.000	.586	.398	.602	1.662
Orientation	.564	.516	.458	.461	.586	1.000	.498	.484	2.067
Satisfaction	.422	.581	.269	.321	.398	.498	1.000	.606	1.651

4.2.5 Demographic Information of The Respondents

In this section, about 100 respondents were asked about their demographic information to examine the certain background of professional respondents representing multinational companies in Malaysia that run in a diversity of industries which use supply chain management who took part in this study. The following items like gender, age, work experience, job position, industry type, Transactional period, number of employees and the average sales were the items elicited. Table 4.4 presents the results of the descriptive data.

Table 4.4 The Result of Descriptive Data (n=100)

Variable	Category	Number	Percent
Gender	Male	52	52.0
	Female	48	48.0
	Third sex	N/A	N/A
Age	20-30	25	25.0
	31-40	71	71.0

	41-50	4	4.0
	Above 51	N/A	N/A
Work experience(year)	1	8	8.0
	1-3	37	37.0
	4-6	52	52.0
	7-10	3	3.0
	Above11	8	8.0
Job Position	Ordinary	3	3.0
	Assistant Manager	31	31.0
	Middle Manager	61	61.0
	Director	5	5.0
	Managing Director	N/A	N/A
Industrial type	Automobiles	14	14.0
	Electronics	76	76.0
	Paper	2	2.0
	Rubber, Plastic, Chemical	5	5.0
	Drinks, Groceries	3	3.0
Transactional period with your partners?	Less 1year	N/A	N/A
	Less 3 year	41	41.0
	Less 5 Year	29	29.0
	Over 5 year	30	30.0
Employees	Under 500	74	74.0
	1001-3000	11	11.0
	3001-5000	8	8.0
	5,001-10,000	7	7.0
	Above 10000	N/A	N/A
Average sales (Euro)	Less than Euro 700,000	3	3.0
	700000-4000000	26	26.0
	4000000-8000000	59	59.0
	8000000-24000000	12	12.0
	More than 24000000	N/A	N/A

The first characteristic, gender, showed the respondents representing multi-national companies in Malaysia who participated in this study was comprised of 52 females (52% of the total) and 48 males (48% of the total). As seen in Table 4.4, participants were divided into four age categories, with most of the respondents, 71 (71%), aged between 31 and 40 years, followed by those who aged between 20 and 30 years 25 (25%) respondents. Nevertheless, those who aged between 41 and 50 years are the smallest group with only 4 (4%) respondents, however, none of those who took part in this study was above 50years old.

Concerning the respondents work experience which was divided into four categories, more than half of the 52 (52%), have between 4- and 6-years work experience. The second highest group were those who received have experienced between 1 and 3 years 37 (37%). However, the smallest group were those who have work experience between 7 and 10 years with only 3 (3%) respondents. Those only 1-year work experience and those who have above 11 years of work experience were the second smallest group with 8 (8%) respondents for each group.

Concerning the respondents' job position, which was divided into five categories, most of them 61 (61%) have middle manager position, followed by those who are assistant managers with 31 (31%) respondents. The other 8 (8%) were those who were either ordinaries or directors, however, no responses from those who have managing director position. Further, with regards to the industrial type, most of those who took part in this study were from the electrical sector 76 (76%) respondents. The remaining 24 (24%) from other sectors, namely automobile 14 (14%), rubber, plastic and chemical 5 (5%), drinks and groceries 3 (3%) and paper 2 (2%) respondents.

Moreover, about the transactional period with your partners, the biggest group were those who reported that they worked for less and 3 years with 41 (41%) respondents, followed by those who said who have over 5 years with 30 (30%) respondents. Meanwhile, those who said they have less than 5 years come at the third rank with 29 (29%) respondents. Furthermore, with regards to the employees' number, most the respondents 74 (74%) responded that they have under 500 participants. Finally, concerning the average sales in the Euro, more than half of the respondents 59 (59%) reported that they sold between 4,000,000-8,000,000 Euro. Those who said they have between 700,000-4,000,000 Euro come second with 26 (26%) respondents.

Nonetheless, none of the respondents said that they have more than 2,4000,000 Euro average sales.

4.2.6 Testing the Model Using Regression Analysis

Multiple regression analysis is a multivariate technique that is used to “predict scores on a dependent variable from scores of several independent variables” (Pallant, 2016, p. 122). As indicated earlier, there are three major types of regression model: standard or simultaneous, hierarchical and stepwise regression (Pallant, 2016; Haier et al., 2014).

In this study, the standard or simultaneous model was utilized, in which independent variables are entered into the regression equation at the same time to examine the relationship between the whole set of independent variables and the dependent variable. Notably, there are a variety of ways of presenting the output or results of multiple regression analysis. As a minimum, one should show what type of analysis was performed, standardised Beta coefficients if the study was theoretical, or unstandardized values if the study was applied (Pallant, 2016).

4.2.7 Effect of the Relational Aspects of Purchasing Performance

Multiple regression analysis (MRA) was conducted to assess the ability of three relational aspects (commitment, trust and cooperation) to predict the dependent variable (purchasing performance). This is in line with Hypothesis 1-1 (commitment has a positive effect on purchasing performance), Hypothesis 1-2 (trust has a positive effect on purchasing performance) and Hypothesis 1-3 (cooperation has a positive effect on purchasing performance), respectively. The first step was to check the sig. F value in this model. The value is 0.000, and thus the assumption that the model is statistically significant can be accepted. Table 4.5 shows there was a significant influence of the relational aspects on purchasing performance at the $p < .05$ level for the three conditions ($F(3,96) = 18.148, p = 0.000$).

Table 4.5 ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.644	3	1.215	18.148	.000 ^b
	Residual	6.425	96	.067		
	Total	10.068	99			
a. Dependent Variable: Purchasing Performance						
b. Predictors: (Constant), Commitment, Cooperation, Trust						

Table 4.6 reveals the model summary between the predictors (commitment, trust and cooperation) and the dependent variable (purchasing performance) from multiple regression analysis (MRA). The coefficient of determination (R-squared) explains the variation of the model. The finding shows that the predictors affect the dependent variable at a percentage of 36.2%, as explained by the model (R-squared = .362). The MRA with all the three predictors (commitment, trust and cooperation) produced $R^2 = 36.2\%$ variance explained for purchasing performance. Thus, the results indicate a significant model that can be investigated by its relationships.

Table 4.6 Model Summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.602 ^a	.362	.342	.25870
a. Predictors: (Constant), Commitment, Cooperation, Trust				

Table 4.7, below, shows that out of the three predictors, only one (Trust) is found to be statistically significant. As shown in the table, the criterion variable (purchasing performance) was significantly predicted by customers' trust (Beta =.453, t

= 4.974, $p = .000$), However, both cooperation (Beta = .117, $t = 1.310$, $p = .193$) and commitment (Beta = .177, $t = 1.952$, $p = .054$) shows no significant influence on the purchasing performance. Thus, one out of the three hypotheses were accepted.

Table 4.7 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.434	.451		3.177	.002
	Trust	.404	.081	.453	4.974	.000
	Cooperation	.107	.082	.117	1.310	.193
	Commitment	.185	.095	.177	1.952	.054
a. Dependent Variable: Purchasing Performance						

4.2.8 Effect of the information sharing and long-term Relationship Orientation on purchasing performance

Multiple regression analysis (MRA) was also conducted to assess the ability of information sharing and long-term relationship commitment to predict the customer's purchasing performance. This is in line with Hypothesis 2 (Information-sharing has a positive effect on purchasing performance) Hypothesis 3 (Long-term relationship has a positive effect on purchasing performance), respectively. The first step was to check the sig. F value in this model. The value is 0.000, and thus the assumption that the model is statistically significant can be accepted. Table 4.8 shows there was a significant influence of information sharing and long-term relationship commitment on purchasing performance at the $p < .05$ level for the three conditions ($F(2,97) = 35.549$, $p = 0.000$).

Table 4.8 ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.259	2	2.129	35.549	.000 ^b
	Residual	5.810	97	.060		
	Total	10.068	99			
a. Dependent Variable: Purchasing Performance						
b. Predictors: (Constant), orientation, information sharing						

Table 4.9 reveals the model summary between the predictors (information sharing and long-term relationship commitment) and the dependent variable (purchasing performance) from multiple regression analysis (MRA). The coefficient of determination (R-squared) explains the variation of the model. The finding shows that the predictors affect the dependent variable at a percentage of 42.3%, as explained by the model (R-squared = .423). The MRA with all the three predictors (information sharing and long-term relationship commitment) produced $R^2 = 42.3\%$ variance explained for purchasing performance. Thus, the results indicate a significant model that can be investigated in its relationships.

Table 4.9 Model Summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.650 ^a	.423	.411	.24474
a. Predictors: (Constant), orientation, Information sharing				

Table 4.10, below, shows that both information sharing and long-term relationship commitment found to be statistically significant. As shown in the table, the criterion variable (purchasing performance) was significantly predicted by information sharing

(Beta = .399, $t = 4.195$, $p = .000$) and long-term relationship commitment (Beta = .330, $t = 3.496$, $p = .000$) shows significant influence on the purchasing performance. Thus, both hypotheses two and three were accepted.

Table 4.10 Coefficients of

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.541	.350		4.406	.000
	Information sharing	.396	.094	.399	4.195	.000
	orientation	.270	.078	.330	3.469	.001
a. Dependent Variable: Purchasing Performance						

4.2.9 Effect of purchasing performance on purchasing satisfaction

Simple linear regression (SLR) was also conducted to examine the impact of purchasing performance on purchasing satisfaction (Hypothesis 4). The first step was to check the sig. F value in this model. The value is 0.000, and thus the assumption that the model is statistically significant can be accepted. Table 4.11 shows there was a significant influence of purchasing performance on purchasing satisfaction at the $p < .05$ level for the three conditions ($F(1,98) = 21.282$, $p = 0.000$).

Table 4.11 ANOVA Results of Factors Influence

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.480	1	1.480	21.282	.000 ^b
	Residual	6.813	98	.070		
	Total	8.292	99			

a. Dependent Variable: satisfaction
b. Predictors: (Constant), Purchasing Performance

Table 4.12 reveals the model summary between the predictors (purchasing performance) and the dependent variable (purchasing satisfaction) from simple linear regression (SLR). The coefficient of determination (R-squared) explains the variation of the model. The finding shows that the predictors affect the dependent variable at a percentage of 17.8%, as explained by the model (R-squared = .178). The SLR with all purchasing performance produced $R^2 = 17.8\%$ variance explained for purchasing satisfaction. Thus, the results indicate a significant model that can be investigated in its relationships.

Table 4.12 Model Summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.422 ^a	.178	.170	.26366
a. Predictors: (Constant), Purchasing Performance				

Table 4.13, below, the criterion variable (purchasing satisfaction) was significantly predicted by purchasing performance (Beta =.422, $t = 4.613$, $p = .000$), Thus, hypotheses four were accepted.

Table 4.13 Coefficients of

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.770	.370		7.478	.000
Purchasing Performance	.383	.083	.2	4.613	.000

a. Dependent Variable: Satisfaction

4.3. Discussion

This study aims to identify factors that affect purchasing performance and satisfaction to make recommendations to buyers. The questionnaire was designed on MS-Word and was collected in Malaysian companies located in Senawang. The total 102 applicants however 100 were finally chosen for data analysis.

First, to find outlier based on Z-Score, purchasing performance that got 56 cases was more than <-3.29 . The factor was the only outlier in the analysis

Second, Normality distribution test was conducted to ensure that the data are not too far from a normal distribution based on Skewness and Kurtosis. The result was all acceptable range of normality -2 to $+2$.

Multicollinearity test was conducted to identify the existence of correlation and detect multicollinearity issues. Seven factors (Purchasing performance, trust, cooperation, commitment, information sharing, orientation, satisfaction) had no issue of Tolerance value which was lower than 0.10. Besides, the VIF value was lower than 10 accordingly.

Third, Demographic information was analysed based on 100 professional survey data. The Gender distribution was almost same Male 52% Female 48 %. The Age of 31-40 (71%) and 21-30(25%) was the major population.

- ◆ 1-3 year (37%) and 4-6 year (52) experience account for 89 % in this analysis.
- ◆ Assistant manager (31%) and Middle manager(61%) were the dominant job position in the questionnaire survey.
- ◆ Industrial type was Automobiles (14%) and Electronics(76%)
- ◆ The transactional period was “less 3 year (41%)”, “less 5 year(29)”, “over 5 years (30%)”
- ◆ The employee Number was mostly under 500(74%)
- ◆ Average sales in Euro were “700,000-4,000,000(26%)”, “4,000,000-8,000,000(59%)” , and “8,000,000-24,000,000(12%)”

Fourth, Multiple regression analysis H1(Relational Aspect has a positive effect on purchasing performance) was conducted and a result of Sig.F Values that three factors Trust, Cooperation and Commitment were acceptable 0.000. ($F(3,96) = 18.148, p = 0.000$). However, only trust that was found to be statistically significant ($Beta = .453, t = 4.974, p = .000$) had a positive coefficient on purchasing performance.

Each Sig. F Value in this model was 0.000 that Hypothesis 2 (Information-sharing has a positive effect on purchasing performance) and Hypothesis 3 (Long-term relationship has a positive effect on purchasing performance) were acceptable. Besides, the R-Squared shows Information-sharing and Long-term orientation affect the dependent variable at the percentage of 42.3%.

Lastly, purchasing performance on purchasing satisfaction (Hypothesis 4) was examined based on linear regression (SLR). The Sig. F value was 0.000 that the assumption was acceptable ($F(1,98) = 21.282, p = 0.000$). R-Squared was .178(17.8%). This result indicates that purchasing performance had significant effects on purchasing satisfaction ($Beta = .422, t = 4.613, p = .000$).

Overall, six direct hypothesized relationships were tested in this study. The results showed that four out of the six hypotheses were supported. Table 4.14 summarizes the results of the research hypothesis testing.

Table 4.14 Summary of Hypotheses Testing

Hypo	Sub-Hypo	Direct Relationships	Result
H1		Relational Aspect has a positive effect on purchasing performance	N/A
H1-1		Commitment has a positive effect on purchasing performance	Not Supported
H1-2		Trust has a positive effect on purchasing performance	Supported
H1-3		Cooperation has a positive effect on purchasing performance	Not Supported
H2		Information-sharing has a positive effect on purchasing performance	Supported
H3		A long-term relationship has a positive effect on purchasing performance	Supported
H4		Purchasing performance has a positive effect on purchasing satisfaction	Supported

Four positive results are Trust, information sharing, long-term orientation having impacts on purchasing performance. Therefore, to improve purchasing performance, buyers should consider ways of improving the factors at work. The commitment and cooperation are also essential factors. however, they were identified as less important elements compared to trust, information sharing, and long-term orientation.

Goals in purchasing team will be reducing unit cost and stable supply channel from suppliers. For this reason, buyers should have keen and concise knowledge on factors which can improve purchasing performance for cost reduction.

4.4. Conclusion

This chapter discussed the quantitative analyses of collected survey data used to investigate effects of the buyer-supplier relationship on purchasing and satisfaction in

supply chain management among professional respondents representing multi-national companies in Malaysia that run in a diversity of industries which use supply chain management. The first part of this chapter was on deducted to data screening and ensuring regression analysis assumptions like detecting outlier cases, checking data normal distribution and multicollinearity. Next, descriptive analysis was conducted to show respondents demographics. Finally, the hypotheses of the study were examined using regression analysis.

Buyer-supplier relationship studies have been studied because there is still a lot of work to find out in the research field. And there is a lot of quantitative research to be done. I have made efforts to base my study on purchasing performance and satisfaction in the Malaysian industry so that it helps buyers who read this thesis for study or work to improve a buyer-supplier relationship.

The result from the questionnaire survey was interesting in terms of Commitment and cooperation had no co-efficiencies on purchasing performance. However, the result came out meaningfully that I will be using the facts I drew outcomes that Trust, Information sharing, and long-term orientation affect significantly purchasing performance. Those predictors that Buyers can consider when working with their suppliers for a long run business are essential components.

5. Concluding Thoughts on the Contribution of this Research, its Limitations, and Suggestions for Further Research

5.1. Implications of Findings for the Research Questions

The outcomes from the analysis addressed the research questions and provide guides on how to improve a buyer-supplier relationship for better performance and satisfaction by utilising factors identified as acceptable in this study.

At first, Trust(H-1-2) is identified as a significant factor in a buyer-supplier relationship in this research.

A fast channel of materials in procurement activity can be made based on trust between supplier and buyer. Trust plays a vital role and tool in getting rid of opportunism in a relationship. This reduces uncertainty and conflicts when they face financial profits and loss. Therefore, to purchasing operation, two parties show trust in any purchasing activities and understand the situation.

At second, Information sharing(H2) is identified as an essential factor. Stock level is considered as the most important factor in purchasing work to supply materials to production lines on time. If any wrong supplying information is sent to a buyer such as shipping schedules to factories, it causes factory operational issues from a lack of supplies. Many respondents who participated in the questionnaires

At third, Long team-oriented relationship(H3) positively affects purchasing performance. Long-term view in business is significantly critical to improving the quality of materials in purchasing work. Especially, when in trouble with a worse business environment such as recession and COVID-19, Supplier will make a lot of efforts to supply as much as possible. The supply plan is based on long term orientation as a business partner.

However, as described Commitment(H1-1) and cooperation(H1-3), two factors in relational view that did not affect positively purchasing performance are identified.

A fourth, purchasing performance(H4) has a significant influence on purchasing satisfaction. Especially, when the supplier provides its quality service of materials with on-time logistics. Besides, price negotiation is one of the most essential parts in purchasing satisfaction for purchasing people to reduce unit cost.

5.2. Contributions and Limitations of the Research

This research was structured to provide insights into essential factors of buyer-supplier relationship that companies based in Malaysia can improve purchasing performance and satisfaction. Most importantly, the objective of this study was to identify the commitment, trust, cooperation, information sharing, long term orientation and purchasing performance. In the end, the result tells whether purchasing satisfaction is affected by variances. The contributions are as follows:

First, this research gives a contribution to Malaysian purchasers who can utilise the realistic results identified by Author who works in the industry. The questionnaires were mostly answered in a global company in the business sector.

Second, the discovery of the factors which affects the purchasing performance and satisfaction, the result directs leaders to learn how to improve a buyer-supplier relationship for better purchasing performance and satisfaction.

There were limitations in this study even though Author tried to overcome as much as possible.

The first limitation was a COVID-19(Corona Virus) which affected data collection activities that the data collection was supposed to be implemented on a worksite where Author work. However, the Malaysian Government declared Movement Restriction order between March and May that I had to only gather the data through Phones and Email. As a result, data collection could not include many companies.

The second limitation was the amount of time because the author worked as a manager in the study field that the author did not have sufficient time to gather more samples including COVID-19 restrictions. However, the outcome was made based on the target 100 samples answered by professional workers. The quality of answers was applied to each questionnaire.

The third limitation was the company size which the data was mostly collected in big sized companies. For this reason, it is limited to suggest practices to small-sized companies when considering the use of this research.

5.3. Recommendations for Practice

To improve a buyer-supplier relationship in Supply Chain Management. The results of the study that readers can enjoy the benefits of them should be recommended for practice.

► Firstly, it is recommendable for Buyer to have office meetings as many as possible to make interactions. According to the result of H1-2, Trust is a positive factor to improve purchasing performance. Based on trust from Suppliers, their performance will be better as much as trust gets deeper.

► Secondly, Buyer should have an integrated P/O system between Purchaser and Supplier such as E.R.P(enterprising Resource Planning) in doing so, mistyped and incorrect numbers should possibly be avoided. According to the result of H2, Information sharing positively affects purchasing performance.

► Thirdly, Investment to facilities of Supplier is recommendable to improve the long-term orientation. In a bid to show dedication to a supplier that Buyers look for long term relationship in business, Buyers invest in manufacturing or design machines and facilities. It has suppliers believe that it is worthy to focus on quality and service for materials they supply to buyers.

5.4. Recommendations for Future Research

This study aimed to provide practical knowledge to Buyers in Malaysia after identifying factors that guide them to improve a buyer-supplier relationship. Because of reckoning the limitations of the research, it is believed that the objectives of the study were largely achieved to figure out realistic factors that should be improved for purchasing performance and satisfaction. On the other hand, the research scope was largely limited for its applicability of the research that has been identified as a study area for future study should be done. The recommendations for future studies as follow:

► Due to the limited study scope in this research, future study should be covered in expended research scope in Malaysia. Then the result will reflect better generality of purchasing work in Malaysia. This study was mostly focused on Electronics where Author worked as a manager. The samples should be collected in diverse industrial sectors,

▣ Owing to COVID-19, Future study should implement in a normal business circumstance. The activities of data collections and consulting opportunities of this study were limited. The respondents who answered the questionnaires reflect COVID-19 situation. There might be differences in the questionnaire's answers in a normal business environment.

5.5. Final Conclusion and Reflections

This study drew a meaningful result after analysing factors that Three factors such as (Trust), (Information sharing), (Long term orientation) positively affect purchasing performance and the purchasing performance also has an impact on purchasing satisfaction. However, two factors such as (commitment) and (cooperation) then are identified not supporting the research questions.

From the conclusion, this study suggests on how to improve a buyer-supplier relationship in Malaysia that Buyers should improve trust, information sharing, and long-term orientation so that buyer's purchasing performance and satisfaction will be improved at work. The Improved effects after taking the recommendations will result in reducing relational cost, transactional cost, and Unit cost.

References

- Anderson & Weitz, B.E. (1992). The use of Pledge to Build and Sustain Commitment in Distribution Channels. "*Journal of Marketing Research*", 29, 18-34.
- Anderson, E. T. G., & Weitz (1992), B. The Use of Pledges to Build and Sustain Commitment in Distribution Channels. "*Journal of Marketing Research*", Vol.26, 18-34.
- Asanuma & Kikutani, T.B. (1992). Risk absorption in Japanese subcontracting: A microeconomic study of the automobile industry. "*Journal of the Japanese and International Economies*", 6(1), 1-29.
- Anderson, J.C. and James A. N., (1990), A model of the distributor firm and manufacturer firm working partnerships, "*Journal of Marketing*", 54(1): 42-58
- Bakhshi, Sharma, A. D. & Kumar A. (2011). Organization Commitment as a predictor of Organizational Citizenship Behavior. "*European Journal of Business and Management*", 3 Issue 4, Vol.3, No.4, pp.78-86.
- Bensaou, M. (1999). Portfolios of Buyer-Supplier Relationships. "*Sloan Management Review*", 40 Issue 4, 35-44.
- Bakardjieva M. and Feenberg A. (2001) "Involving the virtual subject", *Ethics and Information Technology*, vol. 2, n.4, pp. 233-240

- Caniëls, C.J.Marjolein, & GeldermanJ.Cees. (2010). BUYER-SUPPLIER RELATIONSHIP DEVELOPMENT:: AN EMPIRICAL STUDY AMONG DUTCH PURCHASING PROFESSIONALS. "*Journal of Purchasing & Supply Management*", 11 Issue 2/3, 141-155.
- CunninghamT. and Homse, EM. (1982). An interaction approach to marketing and purchasing strategy. "*International Marketing and Purchasing of Industrial Goods*", 323–345.
- Chua, Wai Fong (2019). *Behavioral Research in Accounting.*, Vol. 31 Issue 1, 3-20. 18.
- Cresswell, J.W. 1998. *Qualitative Inquiry and Research Design: Choosing among Five Traditions.* London: Sage Publications.
- Cook, J., & Wall, T . (1980). New work attitude measures of trust, organisational commitment, and personal need nonfulfillment. "*Journal of Occupational Psychology*", 53: 39-52.
- Dewani, P. & Sinha, P. KP. (2012). Gratitude: An Emotional Approach in Business Relationship. "*Research Journal of Business Management*", 6 Issue 1.
- Divakar, Ratchford, B.T .& Shankar, VS., (2005). CHAN4CAST: a multichannel, multi-region sales forecasting model and decision support system for consumer packaged goods.
- Dodd, Nigel. (1994). *The Sociology of Money: Economics, Reason and Contemporary Society.* 233-269.
- Doney, P. M., & Cannon, J. P., (1997)"An examination of the nature of trust in the buyer-seller relationship," *Journal of Marketing*, Vol.61. No.2, pp.35-61.

- Dwyer, F. R., Schur, P. H. & Oh, S.,(1987) "Developing buyer-seller relationships,"
Journal of Marketing Research, Vol.51. No.2, pp.11-27.
- Dillman, 1978, "*Mail & Telephone Surveys*": The total design Method, Newyork: Willy
- Mcfall, L., 1987, Integrity, Ethics, 98:5-20.
- Ganesan, S.,(1994) "Determinants of long-term orientation in buyer-seller relationships," Journal of Marketing, Vol.58. No.2.,pp.1-19.
- Gadde, L. E., and H. Hakansson (1993). "*Professional Purchasing*"
- HarlandMC. (1996). Supply chain management: Relationship, chains and networks,
"*British Journal of Management*". Special Issue, 7(1), 63-80.
- Hoaland, C. I., Janis, I. L., & Kelley, H. H. (1953). New haven, CT: Yale Univeristy Press "*Communication and persuasion*"
- J. Hoyt and F. Huq. (2000). From arms-length to collaborative relationship in the supply chain: An evolutionary process. "*International Journal of Physical Distribution and Logistics Management*", 20(9), 750-764.
- Hummels and Timmer, DiederikHarry. (2004). Investor in Need of Social, Ethical, and Environmental Information. "*Journal of Business Ethics*", 52, 73-84.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). Multivariate Data Analysis: Pearson New International Edition. Pearson Higher Ed.
- J. Hoyt and F. Huq, (2000). From arms-length to collaborative relationships in the supply chain: An evolutionary process. "*International Journal of Physical Distribution & Logistics Management*", 30 issues 9, 750.
- Jarrell, J. L. (1998). Supply Chain Economics, *World Trade*, 11(1), pp. 58-61.

- Jessica& Monica, BB. (2012). Design information for an efficient equipment supplier, buyer integration. *“Journal of Manufacturing Technology management”*, 23 Issue 4, 484-502.
- Janicak, Christopher; Zreiqat, Majed(2019). Professional Safety., Vol. 64 Issue 10, 32-42. 11.
- Johnson-George, C., & Swap, W.(1987). Measurement of specific interpersonal trust: Construction and validation of a scale to assess trust in a specific other. *“Journal of Personality and Social Psychology”*, 43: 1306-1317
- Lamming& Hampson, JR., (1996). The environment as a supply chain management issue. *“British Journal of Management”*, 7, 45-62.
- Lee, H.Young. (2005). A Study on the Integrated Procurement Strategy A Study on the Integrated Procurement Strategy Matrix based on the Buyer- Matrix based on the Buyer-Supplier Relationships Supplier Relationships. 5, 56.
- Lou, X. G. (2009). Research of technological innovation collaboration on the supply chain. *“Shanghai Jiaotong University”*.
- Leenders, Micheal R., and Harold E. Fearon (1993). *“Purchasing and Materials Management”*
- McMillan, John. (1990). Managing Suppliers: Incentive Systems in Japanese and US Industry. *“ California Management Review”*, 38-55.
- Manoochehri, G.H(1984)., Suppliers and the just-in-time concept, *“Journal of Purchasing and Materials Management”*, 16-21

- Mentzer, and al., (2001). Defining supply chain management. *Journal of Business Logistics*, 22(2), pp. 1-25.
- Mohr, J.J., & Spekman.,(1994) R.E., "Characteristics of partnership success: partnership attributes, communication behaviour and conflict resolution techniques," *Strategic Management Journal*, Vol.15. No.2., pp.135-152.
- Moorman, C., Zaltman, G., and Deshpande, R., (1992) Relationships between providers and users of marketing research: The dynamics of trust within and between organizations, "*Journal of Marketing Research*", 29(3): 314-329
- Min, S. H., John, T. M., & Robert, T. L.,(2007) "A Market Orientation in Supply Chain Management," *Journal of the Academy of Marketing Science*, Vol.35. No.4, pp.507-522.
- Nicolaou, I., Ibrahim, M. & Heck E-vA. (2013). Information quality, trust, and risk perceptions in electronic data exchanges, *Decision Support System*. 54, 986-996.
- Rampersad, Giselle; Quester, Pascale; Troshani, Indrit. (2010) "*Journal of Business & Industrial Marketing*"., Vol. 25 Issue 7, 487-500. 14.
- Song, M. and Thieme, R.J. (2006), A cross-national investigation of the R&D-marketing interface
in the product innovation process, "*Industrial Marketing Management*", Vol. 35 No. 3, 308-22.
- Soosay C.A., Hyland P.W. & Ferrer M.(2008), "Supply chain collaboration: capabilities for continuous innovation", *Supply Chain Management: An International Journal*, Vol.13, No.2, pp.160-169.

- Schurr, Paul H. and Julie L. Ozanne (1985), "Influences on Exchange Processes: Buyers Preconceptions of a Seller's Trustworthiness and Bargaining Toughness," *Journal of Consumer Research*, Vol.11 (March), pp.939-953.
- Teng, B. S.,(2000) "Instabilities of strategic alliances: An internal tensions perspective," *Organization Science*, Vol.11. No.1, pp.77-101.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (6th ed.). Pearson.
- Williamson, O.E (2010). Transaction cost economics: the natural progression. "*Journal of Retailing*", 86 Issue 3, 215-226.
- P. N. Greis, John D. Kasardaand. (1997). Enterprise Logistics in the Information Era. "*California Management Review Reprint Series*", 39 Issue 4, 68. 62
- Pallant, J. (2016). *Spss Survival Manual: A step by step guide to data analysis using IBM SPSS* (6th ed.). UK: *McGraw-Hill Education*.
- Oliver, R.L. (1980). A Cognitive Model of the Antecedents and Consequence of Satisfaction Decisions. "*Journal of Marketing Research*", 401-164.
- Helper, Susan. (1991). How Much Has Changed Between US Automakers and Their Suppliers? "*Sloan Management Review*", 15-28.

Appendices

Appendix A – Plain Language Statement



GRIFFITH COLLEGE DUBLIN

Griffith College GBS

Plain Language Statement for research participants

I. Introduction to the Research Study

- The research conducted is a part of the master's dissertation by Hansoo Bok, in the Graduate Business School, in Griffith College Dublin.
- The title of the research is **"A study on the effects of the buyer-supplier relationship on purchasing and satisfaction in supply chain management in Malaysia"**
- Hansoo Bok can be contacted at gumoonhaegol@gmail.com

II. Details of involvement in the Research Study

- The participants will be required to take part in answering survey questions.
- Each survey should take no longer than 30 or 40 minutes.
- Each participant holds the right to withdraw from completing the interview.

III. Potential risks to participants from involvement in the Research Study

It is not expected that there are any risks to survey questions arising from involvement in the study.

IV. Benefits (direct or indirect) to participants from involvement in the Research Study

It is intended that the outcomes of this study will help to improve understanding how SME companies identify and strategically develop a buyer-supplier relationship in supply chain management.

Therefore, it is hoped that the survey may indirectly benefit from participation in the study in future

.V. Procedures aimed at protecting confidentiality

- Every effort will be made to respect Interviewer anonymity.
- The data collected will be analysed by the principal researcher alone.
- Respondent's actual name will be strictly protected.
- All statistical data obtained will be held by the principal researcher and stored in a secure and safety location.

VI. Data destruction

It is planned that the data collected from surveys will be destroyed within two years from the initial date of collection.

VII. Voluntary participation

Each survey participant is required to provide consent prior to answering the questions to ensure voluntary survey participation. Participants may withdraw from survey at any point. There will be no penalty for withdrawing before all stages of the Research Study have been completed.

VIII. Additional information

Interview with an employee of HRM department in a SMEs may be held.

If participants have concerns about this study and wish to contact an independent person.

Please contact:

1.1 Dr Garrett Ryan,

**1.2 Griffith College Research Ethics
Committee**

South Circular Road, Dublin 8, Ireland

Mail: garrett.ryan@griffith.ie ; Tel: +353 1 4163324

Appendix B – Consent Form



Griffith College GBS Informed Consent Form (approx. 300 words)

1.2.1.1 I. Research Study Title

- The research conducted is a part of the master’s dissertation by Hansoo Bok, in the Graduate Business School, in Griffith College Dublin.
- The working title of the research is “**A study on the effects of the buyer-supplier relationship on purchasing and satisfaction in supply chain management in Malaysia.**”
- Hansoo Bok can be contacted at gumoonhaegol@gmail.com

II. Clarification of the purpose of the research

It is intended that the outcomes of this study will help to enhance understanding how SMEs identify and develop talent strategically. Therefore, it is hoped that an interviewer, may indirectly benefit from participation in the study in future.

III. Confirmation of particular requirements as highlighted in the Plain Language Statement

- The participant will be required to take part in a interview and answer the questions comprised in the interview.
- The interview should take no longer than 60 minutes.
- Participant hold the right to withdraw from completing the interview.

Participant – please complete the following (Circle Yes or No for each question)

I have read the Plain Language Statement (or had it read to me)

Yes/No

I understand the information provided

Yes/No

I have had an opportunity to ask questions and discuss this study *Yes/No*

I have received satisfactory answers to all my questions *Yes/No*

I am aware that my interview will be audiotaped *Yes/No*

IV. Confirmation that involvement in the Research Study is voluntary

I may withdraw from the Research Study at any point.

V. Advice as to arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

I understand that confidentiality is maintained by

- Maintaining interviewer anonymity.
- Analysis of collected data will be done only by the principal researcher alone.
- Protecting interviewer actual names.
- Statistical data obtained will be held only by researcher and stored in a secure location.

VII. Signature:

I have read and understood the information in this form. My questions and concerns have been answered by the researchers, and I have a copy of this consent form. Therefore, I consent to take part in this research project

Participants Signature: _____

Name in Block Capitals: _____

Witness: _____

Date: _____

Appendix C – Gantt Chart

Task/Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1) The beginning																
Discussion of the RM2 Feedback																
2) Literature																
Improve and expand the literature																
3) Methodology																
Refine methodological method																
4) Data collection																
Contact employees in purchasing department																
Refine survey questions																
Conduct a short interview																
Conducted and Complete the survey																
Transcription of data																
5) Data Analysis																
Implement a coding step																
Identify survey data																
Extract results from the analysis																
Compare findings to literature																
6) Discussion																
Review of the result data																
7) Review of data with literature and finalize																
Make a conclusion of the findings																
Write the final research report																
revision and final verification																
Print, Bind and make a submission																