

## **The Influence of Purchasing Strategies on Company Performance: Oil and Gas Engineering and Construction Company Case Study**

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## ABSTRACT

*This research tries to determine the impact of various supply chain strategies and the impact of the company's interactions with suppliers on the firm's performance. The effect of these factors on the company's performance is analyzed using the structural equation modeling approach by partial least squares method (PLS). One of the main goals of a supply chain is to use a method that can bring the most and the best performance to the company. This paper reports on an applied research using survey method. 49 questions are designed to evaluate the variables. 7-point Likert scale is used to measure the questionnaire items. 300 completed questionnaires are collected and confirmed. In order to select the appropriate statistical method for testing the hypotheses, first the normality of the distribution of data has been tested using the Kolmogorov Smirnov method. Then, according to the results of this test, the nonparametric Spearman correlation coefficient and the structural equation modeling are used to analyze the data. The result of the hypothesis test shows a significant relationship between the variables. This study shows that the presence of a competitive business leads the company to invest in different situations in the supply chain, which improve company's services and performance. In order to improve the company's performance, managers also need to feel the need for long-term strategies for the supply chain that fits the overall business strategy rather than mid-term strategies. Researches show that it is very difficult to develop a single strategy in the purchasing process that can act as an all-inclusive strategy. Limitation to access company's financial information is the main limitation of this research. Two types of purchase strategies were found in this research which could be the guide for Oil & Gas companies to impellent as their future purchasing strategies. The research has allowed testing and*

*validating the impact of purchasing strategies (Mid-Term & Long-Term) on Company's Performance.*

**Keywords:** Strategy, Supply Chain Management, Mid-term Strategy, Long-term Strategy, Company Interactions with Suppliers, Company Performance.

## INTRODUCTION

The business environment and the level of competition that exists in the domestic and global markets require a variety of applicable strategic planning in the field of supply chain management (SCM). Firms are currently crafting adaptive supply chain strategies at the business and operations levels to be competitive in the global arena. Many large companies have a long way to know all their capabilities to enhance the supply chain management. Supply chain management system is a continuous transformation that should be facilitated by information technology at every stage. Therefore, operational management, supply chain management, and technology management are inseparable in any efficient transformation (Harps, 2000; Stonebraker & Afifi, 2004).

Although different theories tried to explain the existential philosophy of the firm (e.g., resource-based, knowledge-based, strategy-based, and entrepreneurial), very few, if not at all, discussed about the strategists and their view of the firm. Strategic leaders' view of the firm ultimately directs strategies and business models with either flexibility or rigidity (Gross, 2019). The concept of supply-chain (SC) is becoming increasingly important in companies after years of dominating the financial aspects, relevant for shareholders, but that if not used as a resource in business

processes, are poorly effective in creating value (Settembre Blundo et al., 2018).

This study has been conducted in three broad areas: operation's management, supply chain management, and supplier relationship management in relation to company competitiveness. This study also investigates whether the purchasing strategy should be structured at a single level or a hierarchy of different levels for analysis. Extent body of research on the subject of purchasing strategy is severely disintegrated and dispersed. This has led to an ambiguity of literature that challenges supply chain researchers and professionals (Hesping & Schiele, 2015). In order to address this issue, this research proposes a state of the art framework that provides a multi-level understanding of the development and implementation of strategy in purchasing.

Recent studies argue that in the field of purchasing, it is difficult to develop a single, all-encompassing strategy (Hesping & Schiele, 2015). Every organization or company is a part of bigger supply chain, whether being in service or manufacturing industry. The complexity of designing and managing the supply chain is very different from every company and industry to the other. Each type of supply chain should be strategically planned before any action is taken to give it the necessary influence over the company against its competitors. In today's complex business environment, strategies should be designed as a set of flexible and integrated decisions to meet the goals of the company and business (Gattorna, 2006).

Limited research is conducted on the impact of purchasing strategies on increasing the company's performance. This is especially true for companies' operation in the field of oil, gas and petrochemicals. This paper attempts to investigate the effect of applying different purchasing strategies on increasing company's performance. The research data is drawn from a large

multinational consulting and construction company in the field of oil, gas and petrochemicals. The findings of this study could be generalized to use for other companies in this industry. The two main variables of the research are purchasing strategy (independent variable) and the performance of the company (dependent variable). This study also considers the “company's interactions with suppliers” acts as the intermediate variable.

The purpose of this research is to investigate the factors affecting purchasing and supply strategies and their impact on company performance. Specifically, this paper reports the results of an empirical study that 1) identifies the determinants affecting supply chain strategies, and 2) provides an insight for planning strategic supplier-firm relationships. This study conceptualized and operationalized multiple independent and dependent variables (such as Firm's interactions with suppliers), in order to develop a measure for SCM performance.

## **LITERATUR REVIEW**

In a given supply chain, different strategies can be applied at different performance levels. Several studies have investigated the impact of different strategies on the efficiency and performance of the company. Among these, the research method of some studies like (Magutu, Aduda, & Nyaoga, 2015) can be noted which examined the impact of the technology agent as a moderating variable on mid-term and long-term purchasing strategies on company performance.

One of such the qualitative research studies (Gottschalg & Zollo, 2007) maps a number of inbound, internal, and outbound “chains and networks” used by a range of companies for competitiveness. That study identifies sixteen types of Supply Chain strategies, based on the intended output companies are seeking to obtain.

These include: 1. tie down; 2. none existent; 3. synergistic; 4. project logistics; 5. Nano-chain; 6. information networks; 7. market dominance; 8. value chain; 9. extended; 10. Efficient; 11. Cash-to-cash cycle; 12. Innovation; 13. Speed to market; 14. Risk-hedging; 15. Micro-chain; and 16. Demand SC strategies.

The Mid-Range Supply Chain Strategies are operational and will affect midterm firm performance. They include the no need for SC strategy, third-party SC strategy, tie down the firm SC strategy, and the internal system that efficiently feeds production SC strategy (Magutu et al., 2015). The supply chain strategies number 5 through 16 are most representative of how companies articulate their models for competing now and in the future. They are referred to as Long-range Supply Chain Strategies (Magutu et al., 2015).

Firms' strategic efforts to create positional advantages in the marketplace and achieve better performance by improving the efficiency and effectiveness of supply chain activities and processes heavily depend on supply chain integration (SCI). SCI is a firm's strategic collaboration and coordination with its suppliers and customers and the management of internal and external organizational processes. The essence of SCI lies in streamlining core business processes within and between firms. This yields advantages over competitors through cost reduction or superior customer value creation that are associated with superior firm performance (Leuschner, Rogers, & Charvet, 2013; Mackelprang, Robinson, Bernardes, & Webb, 2014).

Advances in technology have simultaneously intensified the need for soft infrastructure. For instance, Beth et al. (Beth et al., 2003) found that superior technology is not the ultimate solution for implementation of SCI and implied that the key to successful SCI lies mainly in organizational structures, relationships, cultures, and people (Huo, et al., 2016).

Another relevant construct in strategic management research is the company's performance. Despite this relevance, it is difficult to find a consensus on a unique definition, dimensions and method of measuring this construct. This severely limits the advancement of research and understanding around this concept.

A research (Santos, 2012), using a model grounded in stakeholder theory and a review of empirical articles explains this phenomenon. This model has six first-order dimensions: profitability, growth, customer satisfaction, employee satisfaction, social performance, and environmental performance. A second-order financial performance construct, influencing growth and profitability, correlated with the first-order inter correlated, non-financial dimensions. Results suggest that these dimensions cannot be used interchangeably, since they represent different aspects of firm's performance, and corroborate the idea that stakeholders have different demands that need to be managed independently (Santos, 2012).

The relationship between strategic planning and corporate performance has been widely studied in past research (Magutu et al., 2015). However, the findings are still not complete. Some of these studies have proven that strategic planning is related to company performance. While other research has come to the opposite conclusion, that there is no relationship between these two items. Daft, Murphy, & Willmott (2010) defines organizational performance as the ability of an organization to utilize its resources, (e.g. knowledge, people, and raw materials) to achieve organizational goals in effective and efficient way.

Liu (2016) adapt Porter's value chain reflecting on the context of cross-border e-commerce. In the adapted value chain in this study, primary activities include inbound logistics, marketing, supply chain and sales models, operation, pricing and service.

Firms' performance could to be examined from either an objective or a subjective perspective. However, most studies have only focused on financial measures such as profitability. Although, measurement of financial performance of the organization has long been recognized, but it is insufficient to measure the overall performance of the organization, as non-financial measurements are worth enough to be incorporated. This study highlights that both objective and subjective measures have been treated equivalent. Although, "financial data is preferable, but firms are not often willing to disclose the confidential data unless the laws require them to disclose it to public" (Dess & Robinson, 1984). However, some prior studies state that, it is relatively challenging to find financial record in public domain. In this case, subjective measures are deemed to be fruitful choices to be employed in order to measure organizational performance (Sosiawani, Ramli, Mustafa, & Yusoff, 2015).

Min (2018) indicated that the combination strategy, which refers to implementing both strategies (broadening customer scope and product diversity), improves firm performance under certain conditions. Paek & Lee (2018) explored the five factors of the service quality such as tangibles, reliability, responsiveness, assurance, empathy that can make an influence on customer satisfaction and loyalty. Although in previous studies (Magutu et al., 2015), the effect of each purchasing strategy has been reviewed on company performance, but the impact that long-term and medium-term strategies can have on the firm's performance, and the role that the company's engagement with suppliers can play in this regard and also the amount roll of company interactions with suppliers is not reviewed.

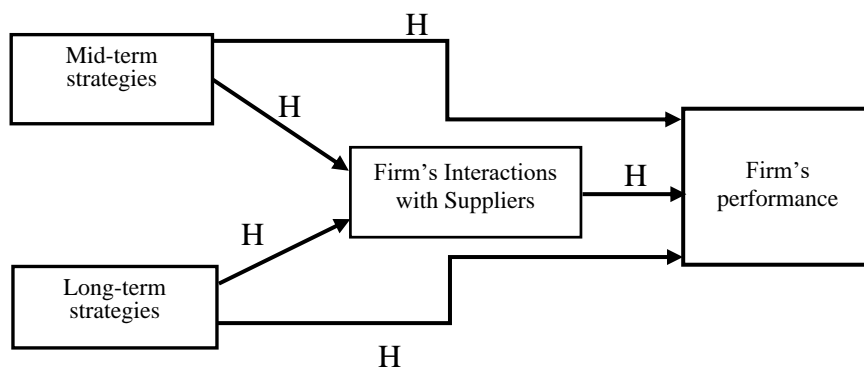


## CONCEPTUAL MODEL AND HYPOTHESES

The conceptual model in Figure 1, is developed based on the arguments raised by the literature review. The main claim of this model is that the long-term and mid-term strategies positively increase firm's performance of company. This conceptual model also argues the argument that firm's interactions with suppliers mediates the relationship between supply chain strategies and performance of large-scale manufacturing firms in oil, gas, and petrochemicals industry.

This model illustrates the interconnection between the Supply Chain Strategies, Firm's Interactions with Suppliers and Firm Performance in one comprehensive framework intended to aid the researcher in developing thorough understanding of the linkages between the above concepts.

Independent variables of this research include: Long-Term Purchasing Strategies in the Supply Chain, and Mid-Term Strategies in the Supply Chain. Dependent variable in this study is Company's Performance, and intermediate variable is Company Interactions with Suppliers. These are shown in Figure 1.



**Figure 1.** Conceptual Model

Based on observations, the research shows that the interactions between company and suppliers serve as the mediator in the relationship between the long-term and medium-term purchase strategies and company's performance. Based on this, the following assumptions were tested. Research (Magutu et al., 2015) shows that technology plays an important moderating role in the relationship between purchasing strategies and company's performance. Another study on the same topic (Liu & Chou, 2016) shows that the company's interaction with suppliers has a positive impact on the company's performance.

Magutu (Magutu et al., 2015) performed his research on large factories in Kenya and examined the role of the company's interactions with suppliers on the company's performance. This study examines the mediating role of the company's interactions with suppliers on the relationship between the purchasing strategies and performance of the company. Therefore, this study posits:

- H1: Long-term purchasing strategies in the supply chain have a positive association with the company's performance.
- H2: Mid-term purchasing strategies in the supply chain have a positive association with the company's performance.
- H3: Long-term purchasing strategies in the supply chain have a positive association with the company's interaction with suppliers.
- H4: Mid-term purchasing strategies in the supply chain have a positive association with the company's interactions with suppliers.
- H5: The Company's interactions with suppliers has a positive association with increasing the company's performance.

## METHODOLOGY AND DATA COLLECTION

In this research, according to the goals and intended questions, the population of interest is all employees of the engineering, management and purchasing departments of an Engineering and Construction Company in the Oil, Gas, and Petrochemicals industry. The subject of this research is an engineering, procurement, construction, and project management company with over four decades of experience in the design and development of industrial projects, particularly in the oil, gas and petrochemical fields. This Company was established in early 70's and provides comprehensive services for the development of industrial projects, from the initial concept of feasibility studies to the provision of license and know-how, basic design, front-end and detail engineering, followed by procurement, supply services, field engineering, construction supervision and project management.

In this research, simple random sampling method is used for sampling among employees. The sample size, calculated using the Morgan table for population of 1400, is 302. Out of all distributed questionnaires, 300 usable questionnaires were collected. In this research, for analyzing the data results has been analyzed by descriptive statistics such as central indices (Mean, Median, mode, percentage, frequency, table, and related graphs) and inferential statistics such as scattering indices, standard deviation, variance, elongation, and skewness, is used and the correlation T test is used to explain the relationship between the two variables. The software used in this study is SPSS and Smart PLS 3 which can test hypotheses and provide descriptive and inferential analyzes.

To be able to accurately generalize the results of this research, it is important to evaluate the respondent's bias (Malhotra & Grover, 1998). Specifically, this test shows the difference between those who are willing and ready to respond to questions and those

who are not interested in responding (Armstrong & Overton, 1977). The principal instrument for collecting data in surveys is the questionnaire. To allow the investigator to collect the most accurate data from respondents, the questionnaire must be unbiased. Bias is a pervasive problem in the design of questionnaires (Choi & Pak, 2005). Typically, respondents who are not biased, are examined by Chi-square test (Meyer & Collier, 2001). The Chi-square test is used to compare actual respondents and reluctant respondents in terms of a set of features, such as size, sales, initial industry segment, etc. However, in some cases, it is almost impossible to use this test to obtain information from unrelated respondents (Huang, 2012).

Figure 3 shows the significant number of research questions whereas figure 4 shows the significant numbers of research questions after implementing statistical control test. By comparing these two results, it becomes obvious that implementing statistic test control test does not have significant changes in “t” values. In other words, respondents’ tendencies to answer questions do not have any impact on their response.

## **DATA ANALYSIS**

For data analysis, Kolmogorov-Smirnov test (KS test) and correlation coefficient test using SPSS software has been used. This study used the structural equation modeling software (SMART PLS) to measure the effect of research hypotheses. One of the assumptions about the association is the lack of collinearity or multiple linear relationship between variables. Therefore, the correlation coefficients between the variables used in the research, before the causal analyzes, are calculated in order to examine the absence of a common multiple linear relationship between the variables.

**Table 1:** Correlation matrix of the research variables

Variable	1	2	3	4	5
Overall strategy (long term and medium term)	1.000				
Long-term strategy	0.783	1.000			
Mid-term strategy	0.144	0.544	1.000		
Company interactions	0.342	0.567	0.605	1.000	
Company's performance	0.407	0.457	0.526	0.533	1.000
Statistical control	0.544	0.550	0.563	0.590	0.500

\* All correlations are significant at the level of 0.05

As shown in Table 1, all correlations have values less than 0.8, so the existence of a common multiple linear relationship between variables is rejected. The highest correlation coefficient is the variable of the overall strategy and long-term strategy ( $r=0.783$ ) at the strong level. And the lowest correlation coefficient is the overall strategy and midterm strategy to the extent ( $r=0.14$ ), which is at a weak level.

### Confirmatory Factor Analysis

Before testing the research hypotheses, significance of the relationship between items and questions should be established. Therefore, a confirmatory factor analysis is used at this stage. The factor analysis measures and quantifies the markers

selected for the given variable, which selectable markers are as accurate or representative as the variable. In the PLS software for factor analysis, it is necessary to connect all variables to each other.

Partial loadings are very important in interpreting the results of factor analysis. This shows the correlation between observed variables (questions) and their related factors. Latent variable depending on how much precision the researcher considers for eliminating the questions, the values from 0.5 to 0.7 are presented for the partial loading, but the lowest limit is 0.4 (Hulland, 1999).

This means that questions with partial loading less than 0.4 are not sufficient, to remain in the model and should be eliminated. As it's visible in Figure 2, all the loadings are higher than 0.4, so no questions will be deleted.

### **Structural Model Goodness of Fit**

There are many statistical indexes used to assess the strength of measurement models. There is no standard that clearly indicates how to use indexes for particular research models (Jin, 2008). The Goodness of Fit (GOF) criterion relates to the general section of structural equation models. By this criterion, the researcher can control the fitness of a general part after examining the fitting of the measurement section and the structural part of his overall research model. In Table 2, the GOF value for the structural model of the research is calculated. The GOF criterion for goodness of fit for the model is calculated as 0.36, which indicates the strong fit of the model.

**Table 2.** The GOF Criterion

Variable	Variance explained	Shared values Communality	GOF
Overall strategy (long-term and mid-term)	0.813	0.815	
Long-term strategy	0.825	0.820	
Mid-term strategy	0.562	0.574	0.36
Firm's interactions	0.744	0.801	
Firm's performance	0.787	0.789	
Statistical control	0.640	0.699	

## FINDINGS

The results of this study specifically illustrate the relationship between supply chain strategies and firm performance. For Hypothesis 1, the overall (long-term and middle-term strategy) of supply in the supply chain has a positive effect on the company's performance. As shown in the equations' table of the results (Table 3), structural equation modeling is used to study the main question. Therefore, according to the variable path coefficient, the overall strategy (long-term and mid-term strategy) and the firm's performance equal to 0.831, as well as the t value of 10.2012, which is out of the significant interval (greater than 1.96) ( $P < 0.05$ ).

Therefore, with a confidence of 95%, we can argue that "the overall strategy (long-term and intermediate strategy) has a significance relationship on the firm's performance".

**Table 3:** Results of research hypotheses

Relationship between research variables	t value	Direct Impact (R)	Whole effect	Result
Overall strategy (long-term and mid-term strategy) - Company	10.201	0.831	0.831	Approved
Long-term strategy - Company performance	11.334	0.873	0.873	Approved
Mid-term strategy - Company performance	7.103	0.499	0.499	Approved
Long-Term Strategy - Company Interactions	10.036	0.819	0.819	Approved
Mid-term Strategy - Company Interactions	8.235	0.655	0.655	Approved
Company Interactions - Company Performance	9.826	0.738	0.738	Approved

For Hypothesis 2, long-term strategy in the supply chain has a positive effect on increasing the firm performance. As shown in the equations' table of the results (Table 3), according to the variable path of the long-term strategy and the firm's performance

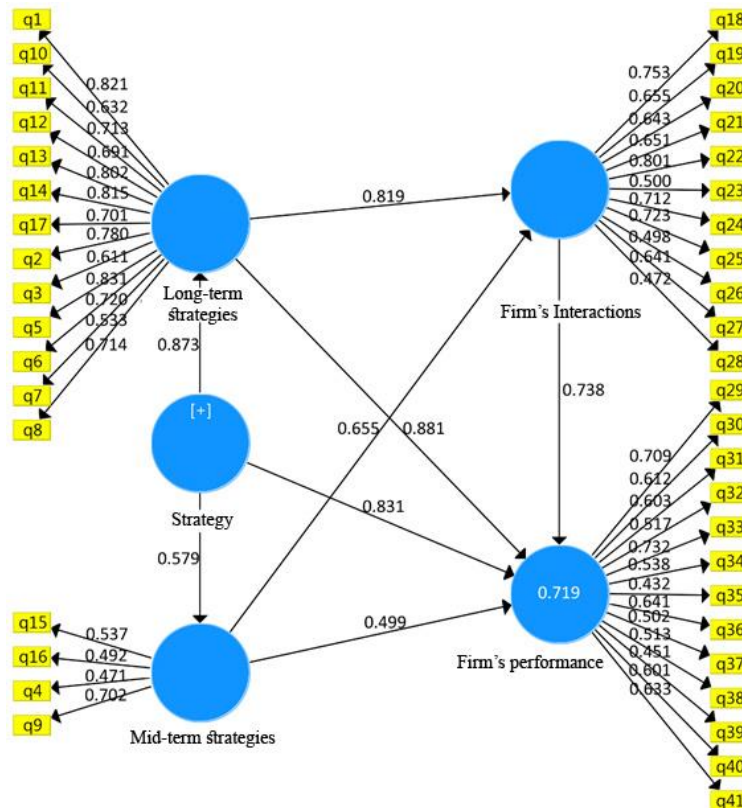


coefficient equal to 0.873, as well as t value of 11.334 which is out of the significant interval (more than 1.96) ( $P < 0.05$ ). Therefore, with a confidence of 95%, we can argue that “the long-term strategy has a significance relationship on firm performance”.

For Hypothesis 3, mid-term strategy in the supply chain has a positive effect on increasing the firm performance. As shown in the equations' table of the results (Table 3), according to the variable path of the long-term strategy and the firm's performance coefficient equal to 0.499, as well as t value of 7.103 which is out of the significant interval (more than 1.96) ( $P < 0.05$ ). Therefore, with a confidence of 95%, we can argue that “The mid-term strategy has a significance relationship on firm's performance.”

For Hypothesis 4, long-term strategy in the supply chain has a positive and significant effect on the interactions of the company with the suppliers. As shown in the equations' table of the results (Table 3), according to the variable path of the long-term strategy and the firm's performance coefficient equal to 0.819, as well as t value of 10.036 which is out of the significant interval (more than 1.96) ( $P < 0.05$ ). Therefore, with a confidence of 95%, we can argue that “Long-term strategy has a positive and significance relationship on the company's interactions with the suppliers.”

For Hypothesis 5, the mid-term strategy in the supply chain of the goods has a positive and significant effect on the company's interactions with the suppliers. As shown in the equations' table of the results (Table 3), according to the variable path of the mid-term strategy and the interactions of the company with the suppliers, which is 0.655 and also t value of the 8.325 is out of the significant interval (more than 1.96) ( $P < 0.05$ ). Therefore, with a confidence of 95%, we can argue that “the middle-term strategy has a significance relationship on the company's interactions with the suppliers”.



**Figure 2:** Standard numbers of research questions

For, Hypothesis 6, the Company's interactions with suppliers have a positive and significant effect on increasing of the company's performance. As shown in the equations' table of the results (Table 3), according to the variable path of the interactions between the company and the suppliers and the firm's performance, which is 0.738, as well as t value of 9.826 that is out of the significant interval (greater than 1.96) ( $P < 0.05$ ). Therefore, with a confidence of 95%, we can argue that the company's interactions with suppliers have a significance relationship on the firm's

performance. From the information outcomes from above tables and hypotheses, it is concluded that the research variables in the statistical population of study are positive and great. The results show that long-term purchasing strategy in the supply chain has the most impact on firm's performance and the mid-term purchase strategy in the supply chain has the least effect on the company's performance.

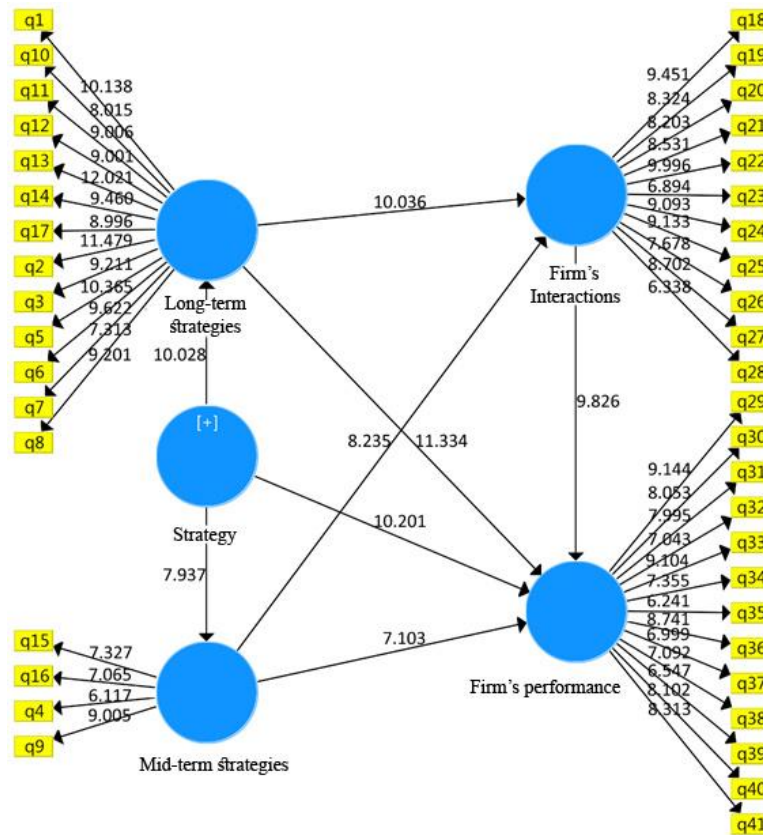
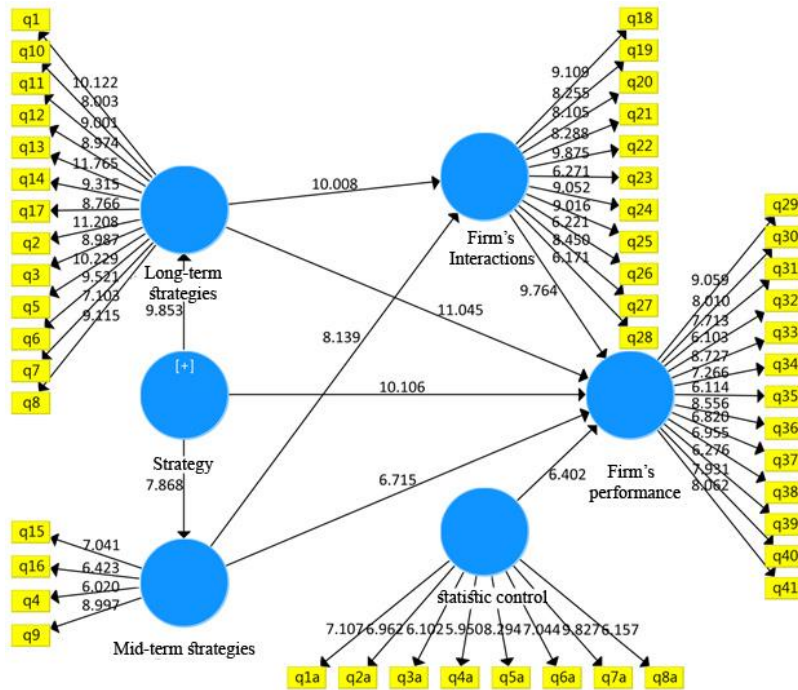


Figure 3: The Significant Number of Research Questions



**Figure 4:** The Significant Number of Research Questions by Implementing Statistical Control Test

## DISCUSSION

Regarding the fact that several indicators were used to measure the studding variables, regression analysis was performed to ensure the accuracy of predicted relationships. Sub-hypotheses were analyzed and it was found that the company's interactions with suppliers had a mediating role in the relationship between purchasing strategies and the firm's performance.

As shown in hypothesis 1, structural equation modeling is used to study the main question. The result of hypothesis shows that with a confidence of 95%, "the overall strategy (long-term and

intermediate strategy) has a significance relationship on the firm's performance".

The result of hypothesis 2 shows that with a confidence of 95%, "the long-term strategy has a significance relationship on firm performance". With considering the result of hypothesis 3, with a confidence of 95%, "The mid-term strategy has a significance relationship on firm's performance."

Hypothesis 4 shows with a confidence of 95%, "Long-term strategy has a positive and significance relationship on the company's interactions with the suppliers. As shown in Hypothesis 5, with a confidence of 95%, "the middle-term strategy has a significance relationship on the company's interactions with the suppliers". The result of hypothesis 6 shows with a confidence of 95% "the company's interactions with suppliers have a significance relationship on the firm's performance".

Scientific research should expand the current literature to fill the gaps for both researchers and managers (Varadarajan, 2003). In this section discusses the findings, which are derived from the original research objectives and assumptions. The main purpose of this research is to determine the effect of the utilization of purchase and service strategies on the company's performance. Accordingly, five other sub-hypotheses were proposed and examined whether the company's interaction with suppliers could play a mediating role in the relationship between purchasing strategies and firm's performance or not. It shows that these interactions will have a positive role in this regard.

The company's performance can be measured by various indicators, including financial and non-financial. Nonfinancial business performances are related with long-term goals and growth potential. Innovative proactiveness affects nonfinancial business performance (Cho & Lee, 2018).

The indicators used in this research are mainly financial indicators by applying the employee's viewpoint. In this paper, drawing on studies in the same field (Magutu et al., 2015), the purchase strategies (long-term and mid-term) has a positive impact on the company's performance. This result suggests that applying a strategy to purchase and services can have a positive impact, though small, on the company's performance. Although each of these strategies alone will increase performance, the results of the research showed that the impact of the long-term strategy's role is far greater than in the mid-term strategies.

In the other part of the study, despite the above research (Magutu et al., 2015) which investigates the moderating role of technology on the company's performance, the role of the company's interactions with suppliers as mediator was found on the relationship between purchasing strategies and firm's performance. This study shows that in addition to technology, other factors, such as the company's interaction with suppliers, have a positive impact on the company's performance.

## **CONCLUSION AND IMPLICATIONS**

This study sought to explore what contradictions further to reveal the relationship between the use of supply chain strategies and the performance of the company, especially in the engineering and consulting companies in the field of oil, gas and petrochemicals. The data of this research is provided by a group of employees of the largest companies in this field, which is why it can be a good indicator for other peers and partners.

The results clearly show a strong relationship between the supply chain strategies and the company's overall performance. This study found that the way companies interact with suppliers can play a very meaningful role in the relationship between supply

chain strategies and overall firm's performance. Moreover, the unique effects of independent variables (mid-term and long-term supply chain strategies), as well as their combined effect on the dependent variable (firm's performance) has been determined.

The strategic planning process for companies can be short-term, mid-term, or long-term. Long-term strategy is more competitive than short-term and mid-term strategies. In this research, it has been determined that the overall supply chain strategy (long-term and mid-term strategy) can have a positive impact on firm's performance. Also, the use of long-term strategies can have a positive impact on the company's performance, which will increase the company's performance. Although the use of mid-term strategies has a small impact on the company's performance, however, the use of these strategies can also increase the company's performance. In this research, the positive effect that the use of long-term and mid-term strategies can have on the amount of interactions between the company and suppliers is also noted. The positive impact of the company's interaction with suppliers on the company's performance is the latest achievement of this research.

Companies active in the field of oil, gas and petrochemicals are exposed to the huge amount of purchasing materials and faced with important issues such as purchasing and supplying their own goods. With utilization of the strategic purchasing system, in addition to saving on production costs, they could reduce the cost of distribution of inquiries and purchases of goods as well as design duration. And it causes both sides, namely, the suppliers of goods and companies, to profit and customer loyalty increases in repeat purchases, as a result, improves financial performance of the company.

Therefore, they can benefit from the findings of this study in their policy and management activities of their purchasing

strategies. They can also benefit from the managerial concepts of these findings. They can use them in their long-term planning. Regardless of the activities of a number of intelligent, executives and managers in the field of supply chain strategy, there are few practical studies that can teach managers ideas and applied lessons that can be used as a supply chain strategy that improves the company's performance. Although initial investments in deploying supply chain has been a major obstacle, the net revenue stream over the investment period should be positive in the long run (Kim, Sung-Ho and Kwon, 2015).

Limitation is one of the issues that negatively affects the quality of the research and research findings. In field research, these limitations are more than laboratory research. All researches are confronted with limitations and are not specific to this research. In general, we can mention the limitations we encountered in this study: Firstly, due to the time limitation, the questionnaires were completed only by a group of employees. Secondly, the tool used in this research is a questionnaire form, which is one of the inherent limitations of the research. Because respondents may respond to the questionnaire based on personal beliefs, the data collected for this research relies on self-reporting data, or it may be completed by other people who are outside the control of the researcher. Thirdly, the best company's performance measurement tool is studying of the company's financial information, but companies are often reluctant to disclose their financial information, and this research was no exception. Therefore, in order to assess the company's performance, the increase or decrease of profitability criteria is measured according to the employee's perspective.

In the process of doing this research, we found some issues that could not be studied in this study. Also, the results of this research



show us new windows on this subject. By presenting these cases, we hope that this finding could be a way for the future researchers.

Firstly, due to the complexities of the project, the present research is conducted only on a sample of oil and gas and petrochemical engineering and consulting companies, so this research can be re-examined for other types of companies in this field, including contractors. Secondly, since this research has been carried out within a certain time frame, it is suggested that the same study be performed again at a different time interval and the results of these two studies be compared. Thirdly, in future research, the role of other variables that can be influential in this regard is also to be considered. Lastly, it is suggested to check the firm's performance for other companies by studying their financial data in order to obtain a more accurate conclusion about the firm's performance.

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