

The Internal Control Moderating Effect on the Relationship of Supply Chain Integration and Firm Performance of Indonesia's Banking Sector

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The aim of the current study is to investigate the moderating effect of Internal control (INTC) on the relationship of supply chain integration (SCI) and firm performance (FP) of the banking sector of Indonesia. For this objective, the data was collected from 450 middle managers by using s stratified sampling technique which yielded a 75 per cent response rate. The SEM analysis of the study has shown that internal integration (INI) and supplier integration (SUI) have a positive and significant integration along with the FP, while customer integration (CUI) does not have a significant relationship with the FP. The indirect effect findings have shown that internal control (INTC) significantly moderates the relationship of INI and SUI, whereas it does not significantly moderate the relationship of CUI and FP. These findings indicate that INTC is an essential variable because it significantly moderates most of the SCI indicators and FP. Therefore, this moderating effect is considered to a big contribution of this study that could become a new area of future research.

Key words: *Supply chain integration, internal control, firm performance, Indonesia, banking sector, Indonesia.*

Introduction

The 21st century is characterised by a number of factors such as globalization, climate change, intense market competition, dynamic business environments, ever rising customer

demands and expectations; all of this has made the business environment as dynamic and competitive as ever before (Sessu, Sjahrudin & Santoso, 2020). Besides the focus on performance related issues and being socially responsible has also emerged as a latest concern for organisations (Islam & Anis, 2018; Pakurár, Haddad, Nagy, Popp, & Oláh, 2019; Santoso, 2016). Therefore, in the presence of such intensive market competition and environmental pressures, conventional strategic management approaches are not suitable and cannot offer an organisation with competitiveness and value creation (Shou, Hu, & Xu, 2018). Hence, scholars have contended that the aforementioned situations are responsible for the success and failure of an organisation. Supply chains as a theory were introduced in 1980 and rapidly gained attention from both academics and practitioners. Recent years have observed a growing literature on SCM both in services and production. SCM consists of all the activities which are included in and linked with how goods are transported, how they are produced from raw materials to the end production. On the other hand, (Shou et al., 2018) defined the SCM as the flow of products and services, finance and information from the production to the end user (Consumer) (Chang, Ellinger, Kim, & Franke, 2016).

Scholars have extensively studied the consequences of the SCM and a wide range of research has been published which emphasised on SCM integration (Jonsson, Andersson, Boon-itt, & Wong, 2011) monetary outlook (Liu, Ke, Wei, & Hua, 2013), and internal control (Narasimhan & Kim, 2002). Accordingly, it is regarded as the organisational strategic orientation which scales up their performance and offers them with competitiveness. Notably, managers are looking forward for the organisational design and putting efforts for the development of further integration which enable SCI to serve multiple purposes (Richey, Chen, Upreti, Fawcett, & Adams, 2009; Shou et al., 2018).

When organisations attempt integration it is not possible to rule out the customers and suppliers from the internal integration as both of them denote certain dimensions. Previously, scholars have acknowledged the significance of three dimensions under a single theoretical framework to study the influence on performance. Previous literature has widely entertained the association between SCI and financial performance (Chang et al., 2016; Gimenez, van der Vaart, & van Donk, 2012); notably, the majority of the studies have emphasised on examining the influence of SCI on business and financial performance. However, the studies which addressed the association between supply chain integration and performance particularly in the banking sector are scarce.

The Committee of Sponsoring Organisations of Tread way is continuously developing a framework for the assessment of the internal control mechanisms of organisations. Notably, these measures are influenced by the board of directors, top management and other personnel. It is inclined to offer a rational assurance related to the accomplishment of the following objectives: productivity of the operations, financial reliability and conformity with rules and

regulations (Narasimhan & Kim, 2002). Organisational performance regarding its vision, mission, strategic choices and objectives are supported by five constituents namely; environmental control, evaluation of the risk, control of activities, quality of information and supervision. All of the aforementioned components act together in order to increase the internal organisational control influenced by the leadership, and the shared vision, which subsumes a culture which focuses on control accountability.

The present is motivated by the fact that already available literature has not sufficiently addressed this topic; notably, the previous studies have not entertained the significance of this topic in the banking sector. Therefore, the present study examines SCI in the banking sector to guide the banks so that it is necessary for them to develop a detailed framework which also addresses their partners as well. Initially, SCI literature addressed only the production, later on it also addressed the services as well. It is believed to be first of its nature because it has applied the SCI theory to the banking sector. It holds that banks must enhance their efficiency and effectiveness along with the improvement in the integration of the supply chain. The present study does not only emphasise that having a higher integration results in higher performance but it also addresses the predictors of the integration which enhances the performance of banks. Therefore, the aim of the research is to conduct the moderating effect of internal control on the relationship of supply chain integration and firm performance of Indonesia's banking sector.

Literature Review

Supply Chain Management Practices

Supply chain management concept is inclusive of two views namely; process integration and strategic integration (Abdallah, Obeidat, & Aqqad, 2014). Earlier views have dealt with the collaboration between the SC partners aimed to improve the customer's satisfaction whereas the second view is focused on the allocation of the organisational resources and member's efforts to develop a SC strategy which offers competitiveness by reducing the cost and enhancing customer satisfaction. Several practices have been used to discuss the SCM. For instance, (Golicic & Smith, 2013) conducted a study and considered the five practices namely; supplier, customer and internal integration, shared information and TQM. Majority of researchers have used the five SCM practices such as integration with supplier, customer and internal, shared information and postponement. Therefore, the present study has used three SCI categories namely; customer, supplier and internal integration.

Supply Chain Integration

Supply chain integration is inclusive of the cooperation between the businesspersons and other supply chain partners with the primary purpose of the development of productive transportation of the materials and resources for the production of the products and services which are destined for the customer and should be bought with the least amount of costs (Chang et al., 2016). SCI has also been described as the collaborative planned activities between the suppliers, manufacturers, distributors and retailers with the objective of the development of the products by transformation of raw material into finished goods (Choi & Hwang, 2015). SCI may be internal or external where internal is inclusive of within organisation integration and the latter emphasises on the integration with supplier and customers (Huo, Qi, Wang, & Zhao, 2014). Either it is internal or external, where the centre point is productivity and customer satisfaction and it has been highlighted in extensive literature review (Chang et al., 2016).

Mostly studies on SCI heavily emphasise the exchange of goods and flow of information as compared to the how cash flows and the specific procedures related to finance (Abdallah et al., 2014). Theoretically, cash flow is inclusive of how cash flows from one company to another. It is also inclusive of the expenses, amount invested and receipts. Additionally, it also includes how partners are dealt with. Payment is regarded as intrinsic for production and trade. Hence, all kinds of supply chains are inclusive of the financial supply. SCI is considered as a productive way to enhance the performance of firms' suppliers and consumers (Chang et al., 2016) and assist the internal and external business process. It is also regarded as a tool to reduce the cost incurred by directing the financial transactions between partners and also by inhibiting the opportunistic behaviour resulting from others' interests (Wiengarten, Humphreys, Gimenez, & McIvor, 2016).

Supplier Integration

Supplier integration can be described as an organisational process of buying firms and suppliers sharing and applying operational, financial, and strategic knowledge in order to generate mutual benefits (Flynn, Huo, & Zhao, 2010). Various terms have been used for supplier integration however, the key concept of supplier integration remains, which is to enhance a single organisational limit so it can easily collaborate with others. Previously studies have provided a model to measure the SCI which evaluates the extent to which suppliers and customers are integrated (Chang et al., 2016; Flynn et al., 2010) and these are two major aspects of the supply chain. On the other hand, the external integration is related to collaboration of an organisation with the partners. Supplier integration is emphasising collaboration in order to smoothen, enhance the efficiency of the supplier network, and also averts the prospective hurdles in the production and raw material purchase process.

Previously a study (Wong, Boon-Itt, & Wong, 2011) regarded shared information between partners, and its suppliers as the relevant areas of the SCI.

Shared information results in high confidence and also minimises the dysfunctional conflicts between supply chain partners and enables good levels of communication as well. Notably, a study has contended that integration between suppliers and the supply chain enables knowledge sharing between the partners. Further it also facilitates the development of association which is needed for the management of the materials and information flow. Managing and developing associations are regarded as the strategic part of the SIC. Notably, a study contended that the long-run associations with suppliers tend to minimise the transaction cost aided by the trust and image (Richey et al., 2009). Supplier integration is composed of the exchange of information, knowledge and materials. Partnership with suppliers is not of a specific type or form. It can be flexible and changed as per the requirements in order to serve the purpose. The incorporation and integration results in the effectiveness and efficiency of the organisations. Accordingly, various scholars have proved that SCI plays a significant role in the development of the competitiveness between firms and also improves the performance of the supply chain (Abdallah et al., 2014; Chang et al., 2016; Golicic & Smith, 2013; WIyati et al., 2019).

Customer Integration

Previously, customers has been regarded as an individual who make the decision and are also able to assess the products and services due to them having purchasing power (Chan, He, Chan, & Wang, 2012). Additionally, shared information due to customer interactions also scale up customer integration. Organisations accomplish their competence and enhance their abilities based on their association with the customers and organisations (Chang et al., 2016).

Customer integration can be described as the practices of an organisation to identify, explain and use customers for the production of goods and services to meet their expectations and also enhancing their satisfaction (Choi & Song, 2018). Previously, a study has argued that customers who provide feedback help organisations to look into their inventories (Islam & Anis, 2018). A good association enables the optimal use of supply chain programs.

A study has pointed out the integration with customers is inclusive of the customers' point of view while considering the production of goods and services. When the customers are aware of the organisation's mind-set, vision, and strategic orientation then they will not be uncertain about it. However, the benefits offered by being clear may fade away by losing the closeness and flexibility in centralised organisations (Golicic & Smith, 2013). In case products and services are not designed as per the customer needs then the internal and external efforts are useless. Previously, a study reported that the firms show high performance in monetary

perspective due to increased customer integration (Chan et al., 2012; Flynn et al., 2010). However, it is solely not sufficient for the organisations to have better performance. Customer identified needs and strategic alliances may prove to be of limited value in case the businesses are not aligned with customers' needs and requirements (Adebanjo, Teh, & Ahmed, 2018; Leuschner, Rogers, & Charvet, 2013; Narasimhan & Kim, 2002).

Internal Integration

According to previous studies, internal integration is described as the merger and development of resources internally and the dissemination of shared information which is beyond the functional and departmental boundaries of the firm by accomplishing integration (Gimenez et al., 2012). Internal integration is regarded as the productive cooperation among producers and distributors which is accomplished by process, procedures and strategies as well to meet the needs of the customer (Jonsson et al., 2011). Performance of an organisation increases due to joint planning, integrating the functions, shared information and teamwork. Additionally, they are also aimed at to fulfil the needs of customers.

Having internal integration refers to the formation of long-run plan to link the procedures and practices in a structured way and also sync them to fulfil the customer needs. Further, they are also aimed to satisfy customer preferences and for an organisation to also interact successfully with suppliers (Kim, 2006a). Integration is aimed to smooth the flow of information, cash and resources to address the needs of the customer (Ataseven & Nair, 2017).

Previously a study has argued that inter-department integration and procedure integration are aimed at addressing and satisfying the needs of the customers and also to provide them goods and services which exceed their expectations and ultimately influence the performance positively. Therefore, considerable attention should be paid to inter-department collaboration (Zhu & Sarkis, 2004). It can be considered as the departmental mix which kick starts from the raw material to production and finally end up at the distribution stage. Previously a study (Sezhiyan, Page, & Iskanian, 2011) reported that internal integration can potentially influence the supply chain. It is dependent on the departmental collaboration and organisational functions to have better value creation. Complex organisations consist of the various internally integrated parts and their complex nature blocks the capacity of organizational members for the identification and actions regarding potential problems of strategic significance. Hindered communication and having a narrow mind set can negatively influence organisations and also pose significant complexity in the sharing of information, and collaborative decision making (Rai, Patnayakuni, & Seth, 2006; Yu, 2015). Top management who are highly experienced and skilled can positively perform across the departments. Managers who have worked across several departments can significantly ensure

the successful integration of these departments. They can develop better understanding about the communication barriers, and significantly aid in both internal and external integration. With management staff having better experience and cross-departmental exposure they can positively contribute towards integration (Chang et al., 2016; Huo et al., 2014).

Internal Control

COSO introduced the internal control-integrated framework to assess organisational internal control, this framework became famous in 1992 and became widely accepted across organisations and countries. According to the framework internal control varies from organisation to organisation, culture to culture and more importantly between varying levels of industrial nature as well. Being a positive factor for organisational working it must be noted that when internal control is not clearly defined this can have a negative effect, particularly when it is not in line with rules, regulations and laws. It is extensively regarded as the procedure which is influenced by the directors, management and other persons working in the organisation (Kim, 2009). Notably, banks establish internal control systems to pinpoint and oversee risks associated with their organisational working. These control systems are used to strengthen the systems which are associated with management. All of the banks are asked to establish the internal control system which is able to provide a guarantee that risks are to be managed in a productive way. Hence, having a productive internal control system offers a bank with the guarantee that banks are productively managing all of their operations in line with the mission of the bank. Further it also ensures that financial data of the bank is reliable and also that the bank's data management is safe as well. Additionally, it also reveals that the bank is following all of applicable rules and regulations. Notably, when a bank fails to conform to the rules and regulations and application of its internal control system then it is considered as bank failure and regarded as vulnerable (Narasimhan & Kim, 2002). Now it is associated with the management of the risks in any organisation. It must address certain factors such as identifying the risks and how to curb them. Thus, the latest concept of the internal control states that it prevails in an organisation for the management of the risks and promotion of the optimal governance in an organisation (Prajogo & Olhager, 2012; Zhang, Lettice, Chan, & Nguyen, 2018).

Previously a study (Tracey, Lim, & Vonderembse, 2005) has also contended that the internal control framework categorises the internal control system of an organisation into five incorporated constituents which must be interlined and built together in order to achieve the objectives of an organisation. Components of the framework are developed in a way that must be developed and effectively managed. Controlling the environment, evaluation of the risks, controlling activities, communicating information and observing activities are the components of the internal control framework (Zhao, Huo, Selen, & Yeung, 2011).

In order to have an effective and efficient internal control framework it is necessary to have the integration between the components and business process of the organisation (Cao & Zhang, 2011). Persistent and cooperative interaction of control systems with business processes is very much essential for having productive control systems which can positively contribute towards organisational effectiveness. Risk observation and evaluation must be incorporated with business units and practice as well in order to have an efficient and effective control system (Sulastri et al., 2019; Andriana et al., 2019). Additionally, it has become compulsory to have cross-departmental communication in order to form the control component which assures the smooth functioning of the system (Bagchi, Ha, Skjoett-Larsen, & Soerensen, 2005).

Firm Performance

Performance is regarded as the consequence of all operational and strategic activities which are performed for a company (Wong, Wong, & Boon-itt, 2013). Therefore, companies are very much concerned regarding performance measurement to see objective accomplishment. Hence, plans must be developed and completed in order to measure the performance required to accomplish the organisations' objectives. Previously, a study (Rai et al., 2006) pointed out that companies must consider monetary performance as a serious concern in order to assess the performance of a supply chain as it contributes towards the profit maximisation. Performance measurement can be measured by two approaches as recommended by the literature where the first approach is the subjective and second was the objective. According to the subjective approach of performance measurement it is measured by the assessment and anticipations of the respondents or by comparing with their competitors. Contrasted to the second approach (objective) follows the absolute assessment of the performance through means such as ratios (Flynn et al., 2010).

Previously studies have regarded the performance as a complex phenomenon but the quantitative and qualitative constructs are comprehensive and broader as compared to performance (Flynn et al., 2010). Another study (Chang et al., 2016) has argued that it is not a wise decision to rely on the only financial aspects to assess performance. Numerous researchers have emphasised the positive outcomes linked with the SCI which is also inclusive of the effectiveness, efficiency, quality, delivery and flexibility as the constituents to measure the operational performance (Choi & Hwang, 2015). Previously, a majority of studies conducted in the domain of SCM established that SCI and performance as significantly influenced (Chang et al., 2016; Flynn et al., 2010). Previously a study (Flynn et al., 2010) established a direct association between SCI and financial performance but the association was insignificant.

Banks are considered to be successful when they have optimal financial performance in comparison to other banks. This financial performance is as a vital component for banks to focus upon. The performance can be subjective and can be objective. Anyhow, the present study has followed the subjective assessment and managers were provided with the questionnaires regarding the financial performance and they have to respond to the questionnaire by ensuring the anonymity of the respondents. Banks financial information is very important for different stakeholders such as for investors and lenders as they need the financial indicators of the banks in order to make decisions. Firm performance denotes to the degree to which an organisation is accomplishing its goals and objectives as compared to its competitors.

Hypotheses Development

Previously a study has established that organisations have internal networks (Kim, 2006b; Santoso et al., 2020) with which they are internally inter-connected. Empirical evidence states that the new development process consists of both the activities within an organisation, as well as the organisation's resources and information. Therefore, due to value creation of organisations, integration also becomes important for them to have collaborative activities and manage the performance measurement (Prajogo & Olhager, 2012).

Monetary factors are considered to be important for SCI (Fabbe-Costes & Jahre, 2008) which also influences the profits by enabling enhanced organisational procedures and effectiveness for decision making and improvement of the strategic orientation to resolve any potential issues. Studies have also established that the SCI has considerable influence on the monetary performance of organisations (Fabbe-Costes & Jahre, 2008; Prajogo & Olhager, 2012). Additionally, a study (Frohlich, 2002) has also reported that companies must make investments in terms of finance and resources for the development of trust with the customers and suppliers aimed at increasing performance.

Recently, a study (Wong et al., 2011) established that the customers and suppliers are significantly associated with financial performance. Another study (Chang et al., 2016) reported that internal and customer integration is significantly linked with performance improvement. Accordingly, a study has also reported that supplier integration and improved financial performance are significantly associated (Prajogo & Olhager, 2012).

Suppliers provide raw materials to be used for the production, anyhow only this aspect is not enough for positive influence on the organisation rather suppliers should also be considered as significant partners regarding sharing information, skills and knowledge (Wong et al., 2011). Integration of the organisational functions and resources is regarded as internal integration (Flynn et al., 2010). A study has contended that the banks must assist and

facilitate the buyers and suppliers for the development of comprehension of the supply chain and performance. Different supply chains coexist in different organisations.

Financial performance can be significantly increased by both the customers and suppliers (Lii & Kuo, 2016). Additionally, policy makers are asked to recognise the costs, benefits and risks associated with the environment before deciding a strategic choice for an organisation (Van der Vaart & van Donk, 2008). Previously, a study has contended that the degree to which customers and manufacturers take collaborative decisions regarding the production, distribution, demand forecast and product delivery fall under customer integration (Narasimhan & Kim, 2002). Organisations' market share can be used to assess its supply chain strategic orientation and it must be noted that the practices and strategic orientation is not primarily dependent on the business, working environment and technology but also on association between the SCI, how much it is diversified and how they are financially performing.

The Effect of Supply Chain Integration on Firm Performance

Organisational capability theory and SCI capabilities are considered important drivers for firm performance (Ataseven & Nair, 2017; Santoso, Kristiyana & Farida, 2020). Therefore, integrative capabilities (internal and external) are to be considered for effectiveness and efficiency. Hence, SCI positive influences performance and this relationship is extensively discussed in literature (Ataseven & Nair, 2017; Chang et al., 2016). The association between customer integration and financial performance is not consistent. In this regard previous studies have reported that customer integration is significantly associated with performance (Chang et al., 2016; Kim, 2009; Narasimhan & Kim, 2002). On the other hand, some of the studies have also reported no relationship (Chang et al., 2016). Thus, it is proposed that the internal and external integration makes contributions to financial performance and it is hypothesized that:

Hypothesis 1: Supplier integration has an influence with firm performance of the banking sector of Indonesia.

Hypothesis 2: Customer integration influences firm performance of the banking sector of Indonesia.

Hypothesis 3: Internal integration has an influence with firm performance of the banking sector of Indonesia.

Internal Control, Supplier Integration and Financial Performance

A regulatory framework is necessary to enhance organisational performance as it supports internal control by directly and indirectly contributing towards the audit (Kim, 2009). Further

it also makes the process transparent, credible and enhances accountability. Internal control was also found to be linked with lower revenues if there is any kind of the issue in internal control (Tan, Kannan, & Handfield, 1998). It warrants more research to examine the influence of the disclosure of material weakness and fraud. Such control offers an independent appraisal of the quality of managerial performance as to the regards of their capability to conduct and fulfil the requirements for generating revenue. Another study (Mackelprang, Robinson, Bernardes, & Webb, 2014) has also contended that the productive internal control system is associated with the success of companies when it is talked about in terms of revenue generation. Such a system is inclusive of the restructuring of the controls which are applied for the protection of assets. Companies are responsible for the training, education and sanitisation of the individuals to utilise the internal control system. Therefore, the productiveness of internal control is backed by the skills, abilities and credibility of its users. Preventive and detective measures are the types of the internal control where the preventive is linked with the prediction of the issues, and finding a solution, the ability to make amendments and also avoid the errors and acts to omit problems as well. The latter, is focused on pinpointing and reporting anything omitted, errors that have happened, or any kind of untrusted activity performed.

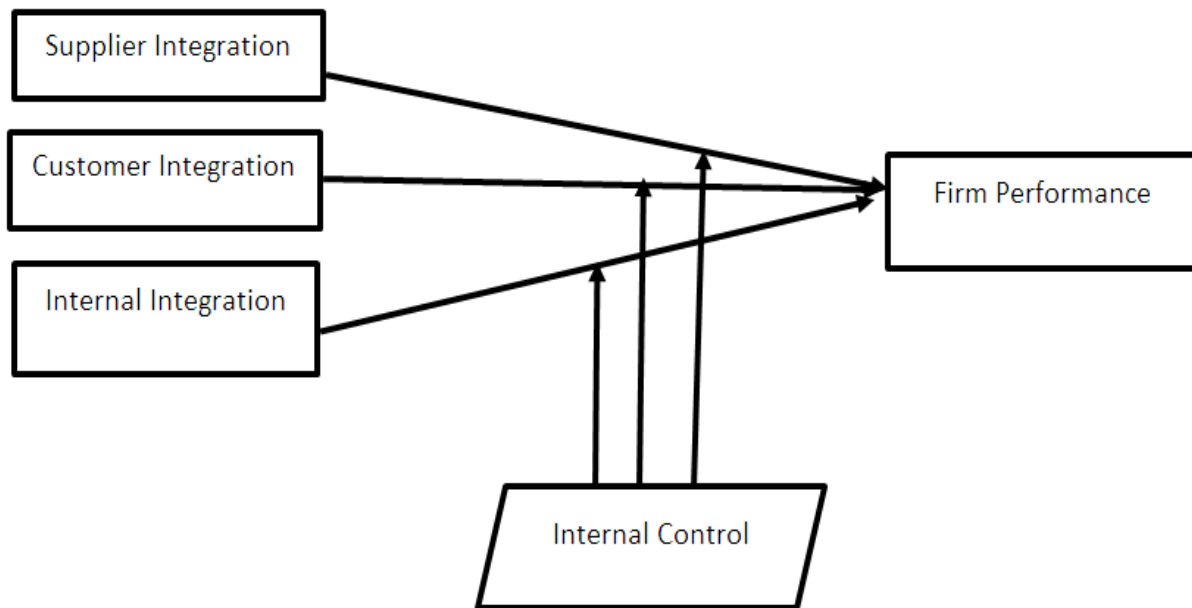
H4: Internal control significantly moderates the relationship of supplier integration and firm performance of the banking sector of Indonesia.

H5: Internal control significantly moderates the relationship of customer integration and firm performance of the banking sector of Indonesia.

H6: Internal control significantly moderates the relationship of internal integration and firm performance of the banking sector of Indonesia.

The above discussions in the literature review section have become the foundation of the current study framework. The current study framework is consisting of following three types of variables, namely independent, dependent and moderating variable. The independent variables of the study are supplier integration, customer integration, internal integration, moderating variable is internal control and financial performance is dependent variable. These variables are predicted in the following Figure 1.

Figure 1. Research model



Research Methodology

The current study has applied the quantitative approach. In addition, the current study has used a cross-sectional research design and also measures the correlational nature of the study. The study has self-administered the research which was adopted from the previous studies which have more reliability and validity. The data was collected from middle managers by using the stratified sampling technique. At the time of study there were 600 managers in the banking sector of Indonesia. Therefore, the questionnaires were distributed to all of the managers, 450 questionnaires were returned back which created a yield of 75%. The questionnaires which were distributed among the managers of the banking sector of Indonesia, were used from the previous studies. The internal integration was measured by ten items, supplier integration was measured by eight measured items and customer integration was measured by eight items. The items were adopted from the study of (Pakurár et al., 2019). In addition, internal control is the moderating variable which was measured by eight items which were adopted from the study of (Pakurár et al., 2019). Lastly, firm performance is the dependent variable which was measured by ten items which were adopted from the study of (Sharabati, Naji, & Bontis, 2010).

Data Analysis and Discussions

The data analysis of the study is consisting of two type of analysis in the Partial Least Square (PLS)-Structural Equation Modelling (SEM) by using a Smart PLS version 3. One is the assessment model and the other one is the structural model.

Measurement Model

In the measurement model of the study, we see that either the model is valid for further analysis or not. For the model assessment, the convergent validity and discriminant validity of the model has been checked. The model convergent validity is checked by, Cronbach alpha that should be greater than 0.7, composite reliability (CR) that should be greater than 0.7, factor loading that should be at minimum 0.5 and lastly average variance extracted (AVE) that should be at minimum value 0.5. The values are suggested by (Hair, Hult, Ringle, & Sarstedt, 2016, 2017). On the other hand, the discriminant validity of the model is assessed by three criteria's. One is Fornell Lacker that should be a greater all the diagonal values, cross-loadings that should be equal to factor loadings, HTMT that should be a construct correlation minimum to 0.85. These recommended values are elaborated by preicous scholars (Hair et al., 2017; Hair Jr, Hult, Ringle, & Sarstedt, 2017; Pakurár et al., 2019). The results of the convergent validity are predicted in the following Table 1, Table 2 and Table 3.

Table 1: Measurement Model

Construct	Item	Loadings	Cronbach's Alpha	AVE	CR
Internal integration	INI1	0.877	0.745	0.66	0.854
	INI 2	0.823			
	INI3	0.735			
	INI4	0.892			
	INI5	0.784			
	INI6	0.561			
	INI7	0.903			
	INI9	0.783			
	INI10	0.892			
	Customer integration	CUI1	0.629	0.796	0.54
CUI 2		0.611			
CUI3		0.696			
CUI4		0.656			
CUI5		0.726			
CUI6		0.725			
CUI8		0.645			
Supplier integration		SUI1	0.764	0.749	0.50
	SUI2	0.754			
	SUI3	0.685			
	SUI4	0.748			
	SUI5	0.577			
	SUI7	0.790			
Internal control	INTC1	0.617	0.706	0.53	0.821
	INTC2	0.784			
	INTC3	0.757			
	INTC4	0.758			
	INTC5	0.785			
	INTC6	0.709			
	INTC8	0.672			
	Firm performance	FP1	0.670	0.717	0.54
FP2		0.771			
FP3		0.713			
FP4		0.776			
FP5		0.782			
FP6		0.930			
FP7		0.912			
FP10		0.782			

Note: INI-internal integration, SUI-supplier integration, CUI-customer integration, INTC-internal control, FP-firm performance.

Table 2: Fornell and Larcker Criterion for Discriminant Validity

	INI	SUI	CUI	INTC	FP
INI	0.717				
SUI	0.236	0.771			
CUI	0.128	0.111	0.709		
INTC	0.605	0.479	0.545	0.732	
FP	0.238	0.447	0.446	0.184	0.733

Note: INI-internal integration, SUI-supplier integration, CUI-customer integration, INTC-internal control, FP-firm performance.

Table 3: HTMT Analysis for Discriminant Validity

	INI	SUI	CUI	INTC	FP
INI					
SUI	0.482				
CUI	0.385	0.790			
INTC	0.587	0.80	0.618		
FP	0.399	0.781	0.583	0.541	

Note: INI-internal integration, SUI-supplier integration, CUI-customer integration, INTC-internal control, FP-firm performance.

Hypotheses Testing

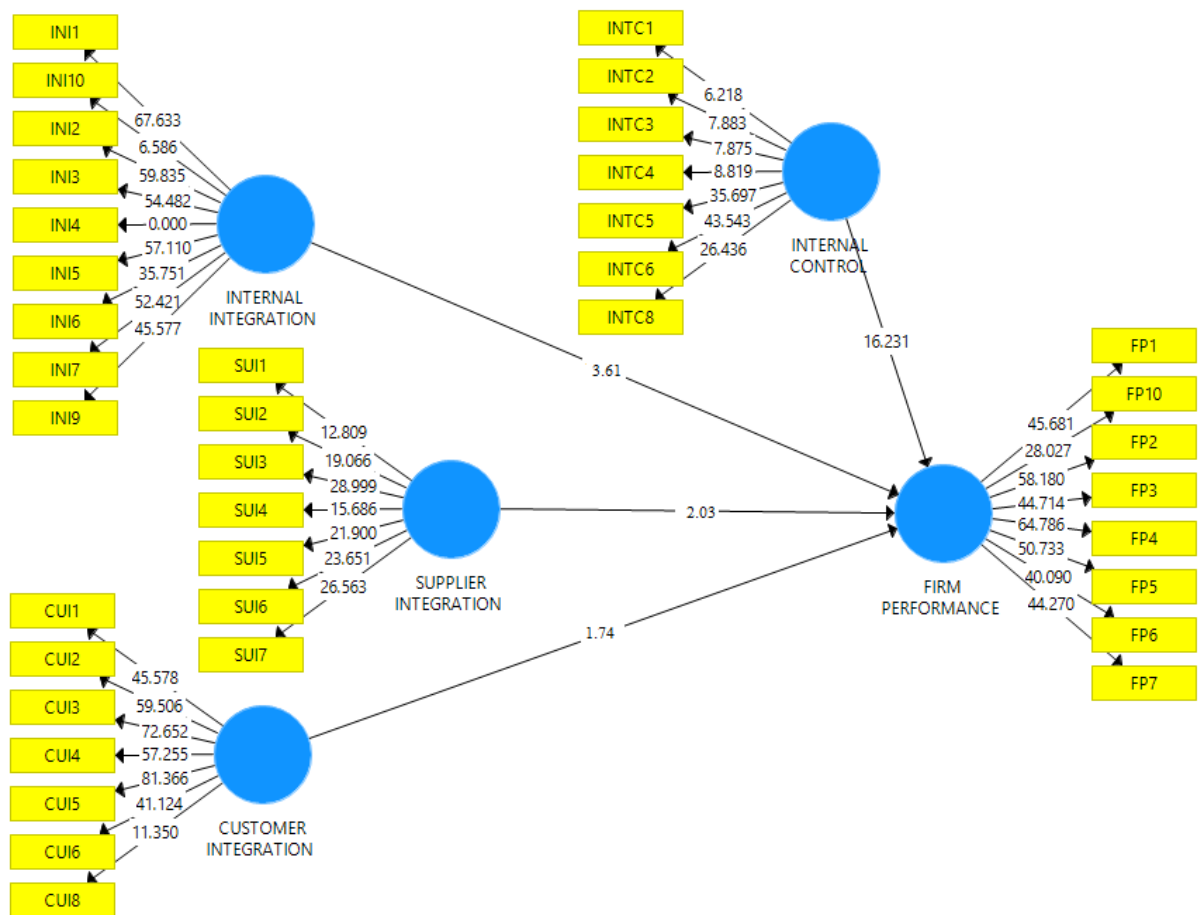
In order to test the hypotheses, PLS-SEM was applied using Smartpls 3.0. The model is consisting of three type of variable, independent, dependent and moderating variable. The supply chain integration (SCI) is the independent variable, internal control (INTC) is the moderating variable, and firm performance (FP) is the dependent variable of the variable. After testing the assessment of the model, the next structural model was run to check the hypothesis. The direct effect SEM analysis of the study is shown in the following Table 4. Table 4 presents the results of PLS bootstrap algorithms that confirms the significant value (t value = 3.61, p value = 0.00) direct relationship of internal integration (INI) and FP. In addition, the supplier integration also has a positive and significant relationship with the FP (t value = 2.03, p value = 0.04). These two direct hypotheses of the study are accepted along with the proposed hypothesis. In addition, the customer integration (CUI) has no relation (t value = 1.74, p value = 0.09). with the FP. Therefore, this hypothesis is not supported, along with the proposed hypothesis. These results indicate that the banking industry of Indonesia must pay little attention on the CUI to increase the FP. These findings indicate that the banking industry of Indonesia should pay more attention on the CUI to increase their FP.

Table 4: Direct Effect

Hypothesis	Beta	S.E	T Value	P Value	Effect Size (f2)	Decision
INI -> FP	0.248	0.071	3.61	0.000	0.304	Supported
SUI -> FP	0.138	0.068	2.03	0.045	0.221	Supported
CUI -> FP	0.110	0.064	1.74	0.086	0.002	Not Supported

Note: INI-internal integration, SUI-supplier integration, CUI-customer integration, INTC-internal control, FP-firm performance, * Significance level = 0.05

Figure 2. Direct effect



On the other hand, the indirect findings of the study inferred that internal control is significantly moderating on the relationship of INI, SUI and FP (t value = 2.57, p value = 0.01), (t value = 2.34, p value = 0.02) respectively. These findings indicate that FP of the banking industry is not only effected from the SCI directly but these two indicators INI and SUI are also effecting FP indirectly. Therefore, based on these findings, it could be inferred that INTC is considered to be a significant moderator in these variable relationships. On the other hand, the INTC does not significantly moderate on the relationship of CUI and FP. A

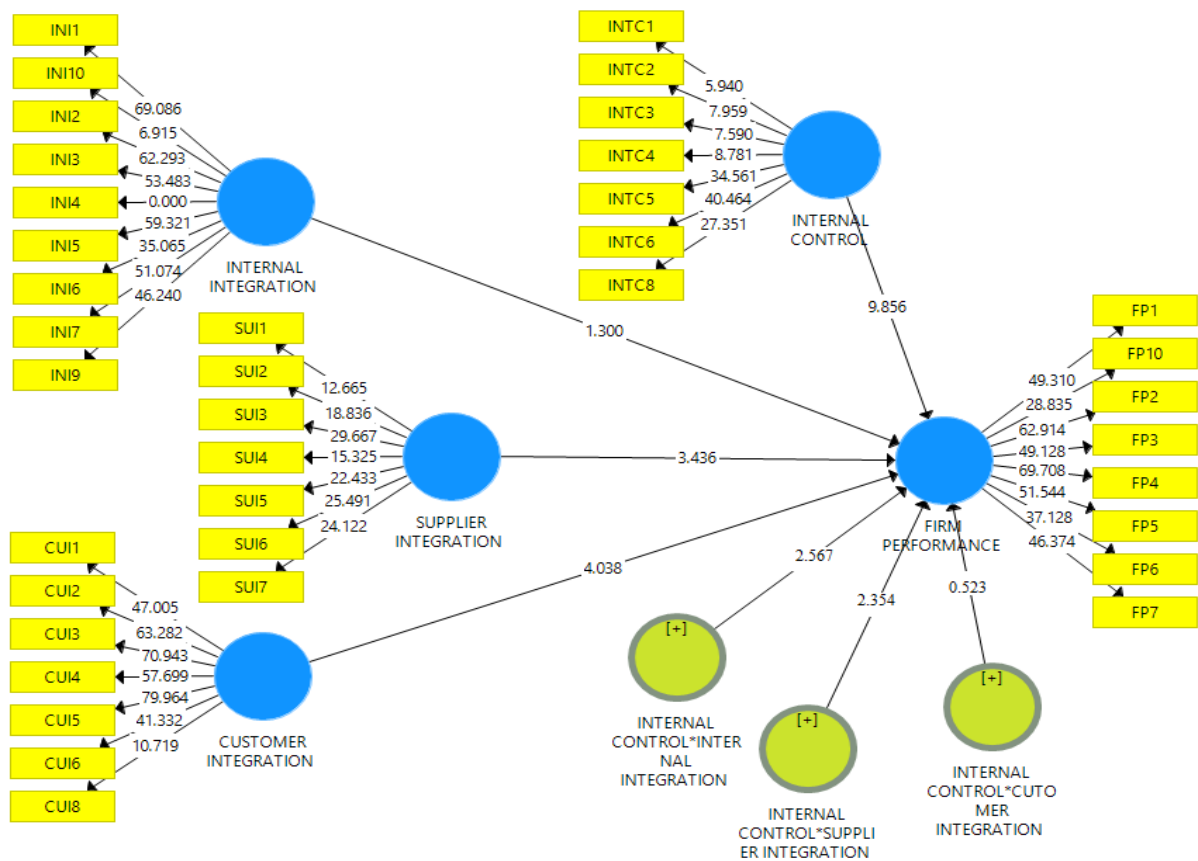
possible reason for this relationship is that CUI also has a direct insignificant relationship. Therefore the probability of the indirect insignificant effect relationship was increased.

Table 5: Indirect Effect

Hypothesis	Beta	S.E	T Values	P Values	Decision
INTC*INI -> FP	0.088	0.034	2.567	0.011	Supported
INTC*SUI-> FP	0.076	0.032	2.354	0.019	Supported
INTC*CUI-> FP	-0.006	0.012	0.523	0.601	Not Supported

Note: INI-internal integration, SUI-supplier integration, CUI-customer integration, INTC-internal control, FP-firm performance, * Significance level = 0.05

Figure 3. Moderating Effect



Conclusions and Recommendations

The current study has supported four hypotheses among of the six hypotheses presented from the research. It is believed that the findings which are gained by this model will be served as a foundation in the improvement of the business of Indonesia. The findings of the current study might also provide help as a good input for better trend analysis and also for strategic discussion. In addition, to enhance further performance, the researcher recommended that



internal control should be governed to manage the supply chain integration. This should be through providing help to control costs. Moreover, initiative should also be taken into consideration to clarify all financial and social aspects to know and comprehend various reasons why Indonesia's is reliant of successful performance in the banking sector.

Limitations and Directions for the Future Research

It is necessary to elaborate on the limitations of study so that reliability and validity of research can be increased. As, the study was cross sectional in nature and data was collected. Based on this limitations, a future longitudinal research could be supported out to measure quantity and change the transversely measured time, and also the direction of the connection among their interactions. Moreover, most of key respondents who provide responses were from Indonesia, which give the answer only in the banking sector context. Therefore, to create diversity in the results, future research is needed to increase the respondents from other financial institutions, so that the generalisability of the findings could be increased. Finally, it could be better to establish extensive research toward distinguishing the moderating and mediating effect in the same model.

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