

The Intermediary Role of Supply Chain Capability Between Supply Chain Integration and Firm Performance

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ABSTRACT

The quest to gain competitive advantage and improve performance has triggered the need for managers of firms to look for new strategies to outwit competitors. This study investigates the potential influence of supply chain integration on the development of capabilities and firm performance. We analysed the data collected from 275 supply chain managers of wholesale firms in Ghana with SmartPLS 3. We discovered that firms which share knowledge, skills, information, and resources with supply chain partners develop supply chain capabilities and improve performance. We will discuss the contributions and the limitations in the content.

Keywords: Supply Chain Capabilities, Firm Performance, Supply Chain Integration

INTRODUCTION

The growing market globalisation and internationalisation have culminated into a stern competition, which threatens the survival of firms, causing many of them to tap into the opportunities in their supply chain. Market instability and challenges of sustaining unidimensional competitive advantage have incited the need for firms to integrate and share resources among industry players to realise sustainability. Supply chain management is prime to operational success (Naway & Rahmat, 2018), enhances competitive positions, and improves market performances, which in the end, reflects in financial performance. Many research findings assert that effective management of firms' supply chain leads to a reduction in the degree of resource usage, enhances customer service quality by way of product availability, and improves order cycle time (Banomyong & Supatn, 2011; Crainic & Laporte, 2016; Stevens & Johnson, 2016;).

Supply chain management involves planning and controlling the various activities in each stage of the value chain of a firm. Supply chain management establishes the connection between and among the various parts of firm and augments value at each stage of strategic operations (Santhi and Gurunathan, 2014; Wang et al., 2016; Naway,

F. and Rahmat, A., 2019; Mosbah et al., 2017; Anyanwu et al., 2016). For firms to exploit all the potentials in its supply chain, there is the need for interconnection of physical and informational flows among the firms within the supply chain link (Troyer and Cooper, 1995). Particularly, Pagell (2004) argues that the effectiveness of supply chain management is hugely dependent on integration.

The resource-based view model argues that firms with valuable, rare, imperfectly imitable and non-substitutable resources and capabilities can gain and sustain competitive advantages (Barney, 1991; Dierickx and Cool, 1989; Collis, 1994; Peteraf, 1993). However, the sustainability of competitive performance by individual firms in today's dynamic and opportunistic market is becoming outdated. Supply chain integration is the collective use of resources among partners of the supply chain to develop supply chain capabilities and enjoy superior performance. Supply chain integration is essential for firms in meeting the requirements of customers through constant availability of resources and participation of customers in product development processes. Firms, which do both internal (departmental connection) and external integrations (suppliers and customers), develop supply chain capabilities.

Capabilities involve a firm's capacity to organise assets, typically in consolidation, using managerial processes, to get the desired results (Amit and Schoemaker, 1993). Olavarrieta and Ellinger (1997), argue that supply chain capabilities may involve a multifaceted mixture of tangible assets, firm practices, the expertise of people and knowledge, which are not certain and demand time to develop and integrate. The two distinctive features of capabilities are the development of maintainable competitive advantage through the enrichment of productivity of firms' resource, which, does not allow easy transferability from one organisation to another. (Makadok, 2001). According to Teece and Pisano, (1997), dissimilarities in resources of firms and competencies may influence the acceptance of a strategy. Morash (2001) argues that firm capabilities should be fundamentally considered when accepting a supply chain stratagem to obtain the preferred performance level.

This research response to Leuschner, et al., (2013) and Chen et al. (2009b) who proposed a conceptual model linking supply chain integration, supply chain capabilities and performance, and called for further study in these relationships. Prajogo et al. (2016) also recommended for more research, examining the connection between logistics and supply chain integration and competitive performance of firms. Several scholarships argue that supply chain integration differs across industries, product categories, plant sizes, and, countries (Flynn et al., 2010; Rajaguru and Matanda 2018; Alfalla-Luque et al., 2015). Hence the need to conduct this study in Ghana.

Finally, much existing literature focuses on the connection between supply chain capability, supply chain integration, and either firm performance or both competitive and operational performance. However, this work goes further to assess the connections, which exist between supply chain integration, supply chain capabilities, and market performance. This work is purposed to explore the relationship between supply chain integration, supply chain capability, and market, operational and competitive performances. This leads to the answering of the research questions;

What is the connection between, supply chain capabilities and supply chain integration, and firm performance?

Do supply chain capabilities mediate the linkage between supply chain integration and performance of the firm?

The subsequent parts of this study cover literature review, conceptual model and hypotheses development, methodology, discussion and results and conclusion which encapsulates implications of the study, limitation, and areas of further studies.

LITERATURE REVIEW, CONCEPTUAL MODEL AND HYPOTHESIS DEVELOPMENT

Supply Chain Integration and Supply Chain Capabilities

Zhao, et al., (2008) described supply chain integration as "the degree to which an organization tactically get together with its partners in the supply chain and controls both internal and external organizational processes to attain effectiveness and efficiency in the flow of information, decisions, money, services, and goods with the aim of offering its customers maximum value. The concentrate giving to either external integration or internal integration by scholars has resulted in insignificant and in some situations, contradictory findings, as in the case of Flynn et al. (2010). Supply chain integration is bound to have a substantive impact on firm performance when firms meet certain conditions. Most scholarships that analyses the significance of supply chain assert that complete integration, comprising internal and external integration, yields better results than integration. (Frohlich and Westbrook, 2001; Rosenzweig et al., 2003; Romano, 2003).

According to Malhotra and Mackelprang (2012), developing supply chain integration leads to a reduction in uncertainty and enhances flexibility in responding to the needs of supply chain members. According to Morash et al. (1996), capabilities are attributes, skills, firm processes, knowledge, and abilities that allow a firm to gain a sustainable competitive advantage over competitors, which leads to superior performance. Bharadwaj, (2000) and Wu et al., (2006) define supply chain capabilities like the capacity of a firm to employ resources within and outside the firm instantaneously to enhance the performance of a supply chain.

Supply chain capabilities give firms the ability to outperform their competitors through supply chain efficiency. Relational capability (Ramayah & Omar, 2010), IT capability (Arumugam & Mojtahedzadeh, 2011), process capabilities, value-added service capabilities (Lynch et

al. 2000), demand-oriented, supply-oriented capabilities (Morash et al. 1996), and organizational culture capability (Braunscheidel et al., 2010) are developed through supply chain integration. Also, Esper et al. (2007) groups supply chain capabilities into five major categories: information exchange capability, customer focus capability, supply management capability, integration capability, supply management capability, and measurement capability.

The findings of numerous literature have established a positive connection between supply chain integration and supply chain capabilities. Chen et al. (2009b) proposed a possible linkage between supply chain integration and supply chain capabilities and investigated supply chain integration as a bi-dimensional construct composed of internal and external integration. Supply chain integration can accelerate the formation of inimitable supply chain capabilities that can augment firm performance (Chen et al., 2009b).

Information shared among the departments of an organisation, and its external partners have the propensity to create supply chain capabilities, which leads to operational efficiency by facilitating seamless cash flows and the sharing of required financial resources through the automation of payables and receivables. Supply chain process integration enhances supply chain capabilities (Rai et al., 2006). Therefore, we hypothesise that;

H1: Supply chain integration has a positive influence on supply chain capabilities.

Supply Chain Integration and Firm Performance

The outcomes of many studies assert that positive link exists between supply chain integration and firm performance, although, the findings of Flynn et al. (2010) could not establish a strong connection between financial performance and integration with customers. According to Armistead and Mapes (1993), the degree of supply chain integration enhances quality and operational performance. The studies conducted by Koufteros et al. (2005) and Narasimhan & Kim (2002) established that customer integration has a positive influence on financial performance. Other studies, like Droge et al. (2004), posit that external integration increases market position and enhance financial performance.

It is believed that the primary benefit of establishing an alliance with suppliers is to ensure consistent access to

quality materials and reliability of delivery from suppliers (Amad et al., 2008). Rai et al., (2006) found that when product movements are automated, firms enhance their operational and logistics performances through improved supply chain responsiveness. Flynn et al. (2010) posit that the significance of integration between firms and both their suppliers and customers improves operational performance. Furthermore, informational, financial and physical integration is a way of tackling inefficiencies (e.g., a solution to the bullwhip effect) and enhancing the quality level of customer service (Kanda and Deshmukh, 2008; Bowersox et al., 1999; Lee et al., 1997).

The dynamic capability theory posits that supply chain integration carves distinctive supply chain capabilities, which enable supply chain participants to gain competitive advantage (Olavarrieta and Ellinger, 1997). This offers organisations the chance to enter into markets that may be impossible to access due to the limitations associated with individual operation and distribution (Wu et al., 2006). Dynamic capabilities, supply chain alliance, and material distribution ensure superior firm-level operational and competitive performance (Kim et al., 2006; Huo et al., 2014; Ju et al., 2016). This leads us to establish the hypotheses;

H2: supply chain integration has a positive impact on competitive performance.

H3: supply chain integration has a positive impact on operational performance.

Supply Chain Capabilities and Performance of Firms

Supply chain capabilities influence firms' performance positively. Extant literature has found a positive linkage between supply chain capabilities and firm performance (Chen et al., 2009b; Kim, 2009). Supply chain capabilities enable firms to achieve high customer satisfaction and further market performance (Tracey et al., 1999). It enhances sales volume and market share of participating organisations by increasing the effectiveness and efficiency of product delivery to consumers.

Supply chain capabilities, which include information technology, culture, and relation, ensure distribution of tangible and intangible resources with supply chain participants, which leads to operational efficiency. Supply chain capabilities cause suppliers to respond well to customer inquiries (Gawankar et al., 2016), resulting

in the increased performance of firms' operations. Baker & Sinkula (1999), argue that over the past years, firms' culture has shown to be one of the crucial contributing factors of improved firm performance. This is because the organisational culture has a significant favourable influence on supply chain performance (Sukwadi et al., 2013), which specifically improve flexibility and enhance the responsiveness of the global supply chain.

Particularly, numerous academics have discovered that information technology infrastructure is the most significant factor to minimise costs (Singhry, 2015), and operational agility (Lu & Ramamurthy, 2011). Moreover, Ramayah & Omar, (2010), discovered that supply chain relational capability is an essential factor that drives operational performance. Resource-based view and dynamics capability theory illustrates that integration of intangible and implicit resources supports the achievement of competitive performance within the supply chain (Huo, 2012). Thus, this type of integration influences the performance of firms (Huo et al., 2014).

From the perspective of supply chain management, competitive performance can be measured as performance compared to competitors in terms of market share, customer retention, sales growth, and profitability (Wu et al., 2006; Fawcett et al., 2007). Hence, we develop the hypotheses; *H4: Supply chain capabilities affect competitive performance positively*

H5: Supply chain capabilities affect market performance positively.

H6: Supply chain capabilities have a positive influence on operational performance.

Supply Chain Capabilities, Supply Chain Integration, and Firm Performance

Sharing knowledge, skills, expertise, and resources among departments of firms and partners of the supply chain culminate in the development of information exchange capability, which enhances the market, operational and competitive performances of firms. The findings of Prajogo et al.'s (2016), Rajaguru, and Matanda (2018) indicate that supply chain capabilities mediate the link existing between supply chain integration and firm performance. Moreover, firms, which implement supply chain strategies, may have the ability to develop valuable, rare, hard-to-imitate, and not easily substituted supply

chain capabilities (Day, 1994; Gligor and Holcomb, 2012). This subsequently results in sustainable competitive and operational performance.

A firm's partnership with suppliers is crucial because it affords the firm to quickly respond to the demands of an unstable market (Sukwadi et al., 2013), leading to improved firm performance through the development of customer focus capability. The findings of Fynes et al. (2005) and Srinivasan et al. (2011) support this assertion. Thus, we develop the hypotheses;

H2b: supply chain capabilities mediate the connection between supply chain integration and competitive performance.

H7: supply chain capabilities mediate the connection between supply chain integration and market performance.

H3b: Supply chain capabilities mediate the connection between supply chain integration and operational performance.

The conceptual model was developed based on the dynamic capability model. The unpredictable nature of today's business environment has made it virtually impossible for firms to create and maintain unique capabilities individually. This has resulted in the popularity gained by the dynamic capability view among researchers who seek to explore how firms operating in an unstable market environment, use their core competencies and resources to create and maintain unique capabilities. Several management researchers argue that the dynamic capability view offers a fundamental explanation for the firm's competitive advantage in an uncertain environment. (Dubey et al., 2018; Teece et al., 1997; Sirmon et al., 2010; Eisenhardt and Martin, 2000; Singh et al., 2013. According to Teece et al. (1997, p. 516). Dynamic capability is the capacity of a firm to integrate, build, and reconfigure both internal and external capabilities to manage the volatile business environment. Dynamic capabilities create current knowledge which triggers sharing, innovation, or replenishment of resources and competencies into skills which are crucial for the unstable business environment (Eisenhardt and Martin, 2000; Eckstein et al., 2015). This has caused firms to adopt supply chain integration to develop and maintain a competitive advantage to remain relevant in the ever-changing business environment in the twenty-first century. The diagram below depicts the relationship between the variables used in this work. The

lines drawn show both the direct and indirect connections between supply chain integration, supply chain

capabilities, and firm performance (market performance, competitive performance, and operational performance).

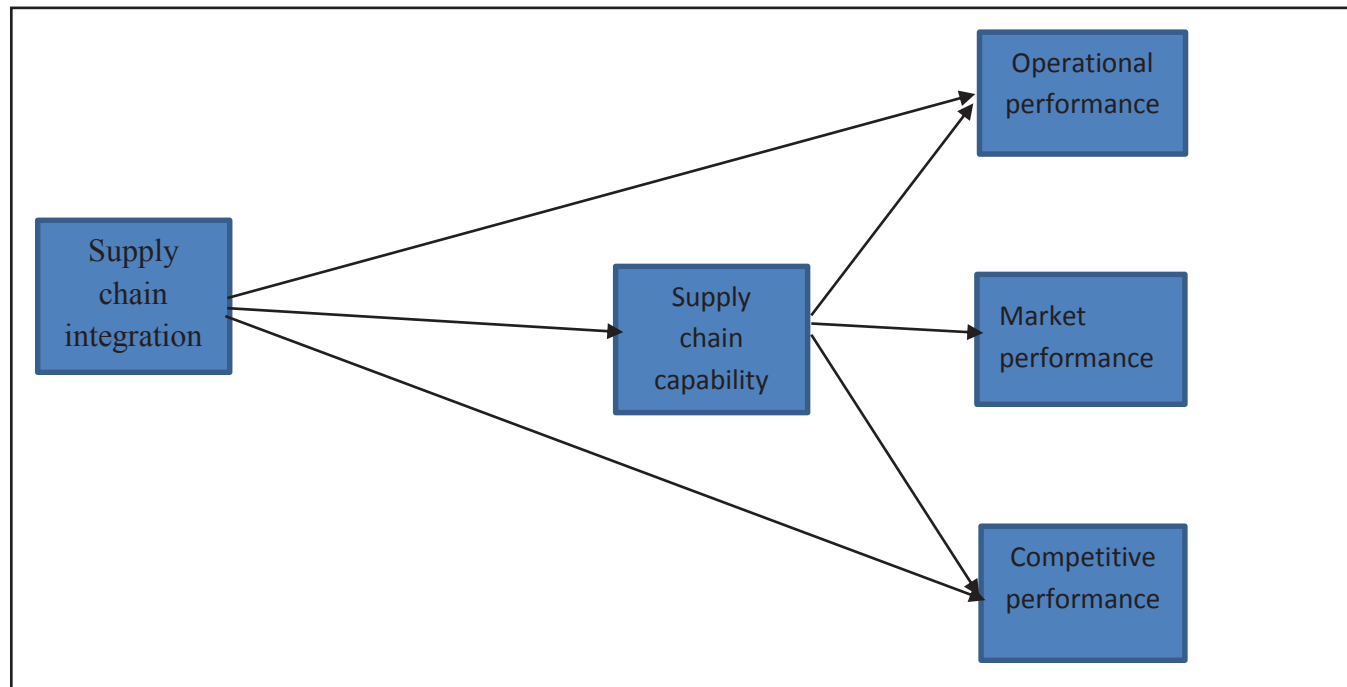


Fig. 1: Conceptual Model

METHODOLOGY

Questionnaire Development

To develop a good questionnaire, most appropriate for our work, we followed Creswell (2009); Sudman and Bradburn (1982) and Yan et al. (2015) who used a four-step approach. We firstly undertook a preliminary interview using unstructured, open-ended questions with supply chain managers and academic scholars. This stage exposed us to the fundamental knowledge in supply chain capabilities and supply chain integration practices of firms. Subsequently, we developed a draft of the questionnaire with numerous measuring indicators by considering the outcomes of the interviews.

We evaluated the clarity and relevance of the questionnaires through a pre-test with ten managers and five academicians in the respective relevant disciplines. We dropped irrelevant scales and rephrased certain scale items, considering the responses received. We carried out a preliminary study of the questionnaires with 40 supply chain managers in wholesale firms, and final changes effected based on the recommendations we received. Two questions were asked to cover each of the indicators.

Data Collection

A sample size of 423 wholesale firms was arbitrarily selected from the database of Registrars Department of Ghana, made up of approximately 2000 entries. The outcome of the initial survey we conducted indicates that at least, middle-hierarchy managers with not less than five years of work experience in the supply chain. For us to increase the participation and response rate, we assured the respondents of their anonymity and the confidentiality of the data.

The questionnaires were given to them personally and left with them for three weeks. We received 326 (77%) of which 275 (84.35%) of the receipt were usable, leading to the effective response of 65%. In the first two weeks, we received most of the responses. We sent weekly reminders to the respondents. The rationale behind this is that the late respondents could have become part of non-respondents should we have not taken follow-up steps (Fowler, 2009).

MEASUREMENT OF VARIABLES

Our measurement procedure was adopted from Gerbing and Anderson (1988), Anderson, & Gerbing, (1988),

and Yan et al., (2015) to help us pick the appropriate measuring items. The exogenous variable, supply chain integration, was measured by using three indicators. The indicators were adopted from (Frohlich and Westbrook, 2001; Rosenzweig et al., 2003; Romano, 2003). For supply chain capabilities, we measured it by using three indicators, which includes relational capability (Ramayah & Omar, 2010), process capabilities, and value-added service capabilities (Lynch et al. 2000).

Three indicators were used for each of the endogenous variables, market (customer retention, sales volume, and market share), operational performance (effectiveness in delivery, reduction in lead-time, and reduction in inventory costs) and competitive performance (flexibility, differentiation, and innovation). We measured all the measuring items using a seven-point Likert-type scale anchored from 1 = very strongly disagree to 7 = very strongly agree.

DATA ANALYSIS

The most suitable technique applied in social science is the structural equation modelling (Naway and Rahmat, 2018). Hair et al. (2014) argue that it is the most acceptable technique for testing diverse hypotheses. PLS-SEM was adopted to analyse the data. We categorised the data analysis into two main sections. The first part investigated the reliability and validity of the constructs. We based the second part on testing hypotheses of the work. Convergent and discriminant validity, average variance extracted (AVE) and composite reliability were analysed to evaluate the model's performance.

In our desire to enhance the power of the model and the findings of our study, all the measuring items falling short of the requirements of individual latent variables were discarded off (Rodgers and Pavlou 2003). In measuring discriminant validity, we first selected and analysed factor loadings, Fornell-Lacker criterion, and HTMT ratio. We tested the hypothesis by using both the beta and p values (Ul-Hameed et al., 2018, 2019) obtained in the analysis

Survey researches are mostly characterised with potential bias. Since our research is a survey-based, we tested the

non-response following the recommendation of (Kock, 2015). The values of collinearity statistics (VIF) (shown in table XI) used to test common method bias in SmartPLS shows no biasness. Table 1 contains the measurement criteria thresholds for reliability and validity of the constructs.

Table 1: Measurement Criteria Thresholds

Measurement criteria	Recommended threshold
Factor loading (Hair et al., 1998)	≥ 0.70
Composite reliability (Bagozzi and Yi, 1988)	≥ 0.60
Average Variance Extracted (Rodgers and Pavlou, 2003)	>0.50
Cronbach's Alpha (Henseler et al., 2009)	≥ 0.70
HTMT Ratio (Hair et al., 1998)	<0.85
P-value	<0.025
VIF	<3.3

Source: Adapted from Hair et al., (1998) and Henseler et al., (2009)

RESULTS AND DISCUSSIONS

As we have earlier on indicated under the data analysis section, we used partial least squares path structural equation modelling (PLS-SEM) method to analyse the data and examine the model. According to Hair et al., (1998), this technique requires us to test the measurement model through an assessment of the validity and reliability of the latent variables. The content of Table 2 confirms the reliability of the model. This is because the respective values for Cronbach Alpha and Composite Reliability range from 0.728 to 0.870 and 0.838 to 0.914. This points out that there is good internal consistency and reliability between the latent variables.

Henseler et al., (2009) posit that convergent validity epitomises a set of indicators, standing as one and its constructs, presented through a unit dimensional variable. The AVE values in table 2, with a range of 0.59 to 0.80, validate constructs. The latent variables utilised in this work have good convergent validity since the values of their AVEs are above the threshold of 0.50, suggested by Rodgers and Pavlou (2003).

Table 2: Construct Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Competitive performance	0.870	0.914	0.780
Market performance	0.776	0.869	0.690
Operational Performance	0.817	0.883	0.717
Supply Chain Capabilities	0.804	0.878	0.707
Supply Chain Integration	0.728	0.838	0.634

Source: Field data

The values of factor loadings, Fornell-Lacker criteria and Heterotrait-Monotrait Ratio (HTMT) of the constructs in Table 3, 4 and 5 do not exceed the set threshold pointed

out in table 1. Table 3 confirms discriminant validity of the model because the square roots of all the AVEs are bigger than the correlations of the latent variables in the model.

Table 3: Fornell-Larcker Criterion

Construct	Competitive Performance	Market Performance	Operational Performance	Supply Chain Capabilities	Supply Chain Integration
Competitive performance	0.883				
Market performance	0.712	0.831			
Operational Performance	0.523	0.653	0.847		
Supply chain capabilities	0.659	0.689	0.582	0.841	
Supply chain integration	0.476	0.660	0.745	0.458	0.796

Source: Field data

Table 4 shows the factor loading of each of the measuring items on their respective constructs developed for this paper. The least value of the factor loadings is 0.732,

which is above 0.70 suggested by Hair et al., (1998). This shows that all the indicators used for this work are valid.

Table 4: Factor Loadings

Factors	Competitive Performance	Market Performance	Operational Performance	Supply Chain Capabilities	Supply Chain Integration
CP1	0.899				
CP2	0.851				
CP4	0.899				
MP1		0.929			
MP2		0.786			
MP3		0.768			
OP1			0.870		
OP2			0.870		
OP4			0.798		
SCC1				0.775	
SCC3				0.872	
SCC5				0.872	
SCI 5					0.854
SCI1					0.732
SCI2					0.798

Source: Field data

Table 5 shows the values of Heterotrait-Monotrait Ratio (HTMT) of the latent variables utilised in the model. The values in the table give evidence that all the latent variables applied in the model have good discriminant

validities. This is because the highest value for HTMT, 0.835, which is obtained by competitive performance is below the ceiling figure 0.850 recommended by Henseler et al., (2015).

Table 5: Heterotrait-Monotrait Ratio (HTMT)

Construct	Competitive Performance	Market Performance	Operational Performance	Supply Chain Capabilities
Competitive Performance	0.835			
Market Performance	0.595	0.736		
Operational Performance	0.630	0.796	0.677	
Supply Chain Capabilities	0.565	0.794	0.804	0.517

Source: Field data

Tables 6, 7, and 8 show the values for R-square, adjusted R-square, F-square, and path coefficients of latent variables employed in the structural model. The exogenous variable predicts the R-square, indicating the variance of the endogenous variable. The F-square is used to predict the impact-size of the independent variable on the dependent variable. The values 0.02, 0.15, and 0.35 suggested by Cohen (1998), representing small, medium, and great effect respectively are used as benchmarks for F-square. While, the values 0.25, 0.50 and 0.75, which represents weak, moderate and substantial respectively can be used as a benchmark for R-square (Henseler et al., 2009; Hair, Ringle, & Sartstedt, 2011).

As shown in Table 6, competitive performance, market performance, operational performance, and supply chain capabilities, have respective R-square values of 0.473, 0.475, 0.629, and 0.209. Again, the individual Adjusted R-square values obtained for the same constructs are 0.469, 0.473, 0.626, and 0.206. This is an indication that a combination of supply chain integration and supply chain capabilities predicts the variance of competitive performance, market performance, and operational performance by 0.473, 0.475, and 0.629, respectively.

Supply chain integration singularly predicts (0.459) of the variance of supply chain capabilities. This show that the combined prediction effect of the variation of supply chain integration and supply chain capabilities on the competitive, market, and operational performances are moderate.

The F-square values of 0.468, 0.905, and 0.198 indicate that supply chain capabilities have great, high, and medium predictive impact-size on the competitive, market, and operational performances, respectively. Again, the F-square values of 0.073, 0.782, and 0.265 indicate that supply chain integration has a small, great, and medium influence on competitive and operational performance, and supply chain capabilities, respectively.

Table 6: R Square

Constructs	R Square	R Square Adjusted
Competitive Performance	0.473	0.469
Market Performance	0.475	0.473
Operational Performance	0.629	0.626
Supply Chain Capabilities	0.209	0.206

Source: Field data

Table 7: The F Square

Construct	Competitive Performance	Market Performance	Operational Performance	Supply Chain Capabilities
Supply Chain Capabilities	0.468	0.905	0.198	
Supply Chain Integration	0.073		0.782	0.265

Source: Field data

Table 8: Path Coefficient

Path	Beta Coefficient	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Hypothesis Testing
Supply Chain Capabilities -> Competitive Performance	0.557	0.038	14.653	0.000	H4: Supported
Supply Chain Capabilities -> Market Performance	0.692	0.027	25.617	0.000	H5: Supported
Supply Chain Capabilities -> Operational Performance	0.302	0.041	7.374	0.000	H6: Supported
Supply Chain Integration -> Competitive Performance	0.221	0.056	3.945	0.000	H2: Supported
Supply Chain Integration -> Operational Performance	0.607	0.033	18.389	0.000	H3: Supported
Supply Chain Integration -> Supply Chain Capabilities	0.458	0.044	10.405	0.000	H1: Supported

Source: Field data

According to Kock (2015), when the collinearity statistics (VIF) is greater than 3.3, it is an indication of pathological collinearity. This means that the model may be contaminated by common method bias. However, if the all (factor-levels) VIFs obtained from a full collinearity

test are less than or equal to 3.3, it could be said that the model is free of common method bias. The highest VIF value (1.265) shown in Table 9, shows that all our VIFs are less than 3.3. Hence, our model is free of common method bias.

Table 9: Inner VIF Values

Construct	Competitive Performance	Market Performance	Operational Performance	Supply Chain Capabilities
Supply Chain Capabilities	1.265	1.000	1.265	
Supply Chain Integration	1.265		1.265	1.000

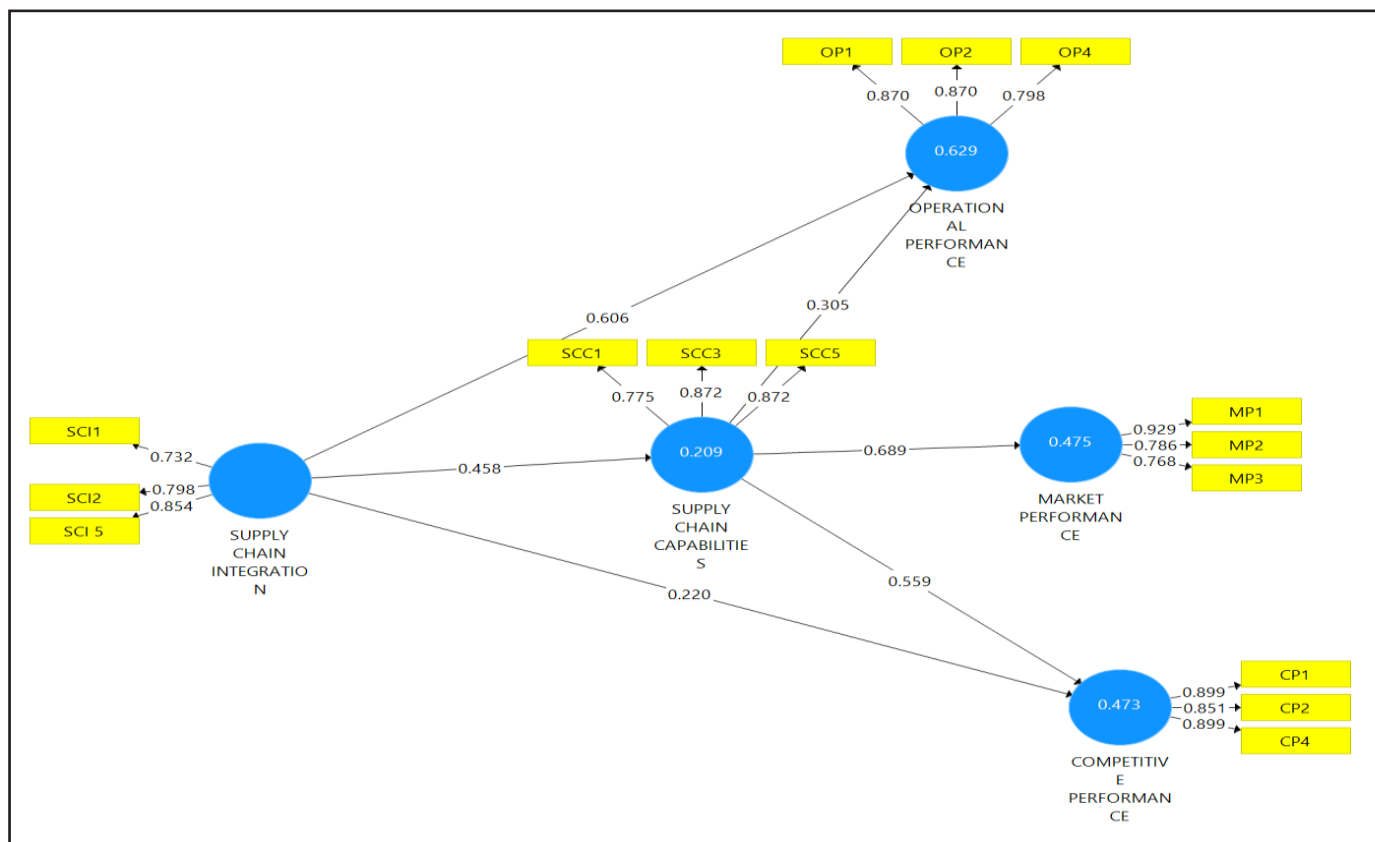


Fig. 2: Smart PLS diagram

Beta and p-values are used to assess the validity of the hypotheses. Table 8 and Fig. 2 give shreds of evidence to support the validity of the hypotheses in this study. The first hypothesis, H1; with ($\beta = 0.458, p=0.000$; Table 8, Fig. 2) is supported and backed by the findings of (Ralston et al., 2015; Chen et al., 2009b). The second hypothesis, H2, is also supported with ($\beta = 0.221, p=0.000$; Table 8, Fig. 2). The work of Gawankar et al., (2016), supports the third hypothesis, H3; with ($\beta = 0.607, p=0.000$; Table 8, Fig. 2). Again, the fourth

hypothesis H4; with ($\beta = 0.557, p=0.000$; Table 8, Fig. 2) is supported. Also, the fifth hypothesis, H5 with ($\beta = 0.692, p=0.000$; Table 8, Fig. 2) is also supported and backed by (Tracey et al., 1999). The sixth hypothesis, H6; is also supported with ($\beta = 0.302, p=0.000$; Table 8, Fig. 2). Moreover, hypothesis H7; with ($\beta = 0.314, p=0.000$; Table 10) is supported. The last but one hypothesis, H2b; with ($\beta=0.260, p=0.000$; Table 10) is supported. The final hypothesis H3b; with ($\beta=0.138, p=0.000$, Table 10) is also supported.

Table 10: Indirect Specific Effect

Path	Beta Coefficient	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Hypothesis Testing
Supply Chain Integration -> Supply Chain Capabilities -> Competitive Performance	0.260	0.026	9.994	0.000	H2b: Supported
Supply Chain Integration -> Supply Chain Capabilities -> Market Performance	0.314	0.038	8.265	0.000	H7: Supported
Supply Chain Integration -> Supply Chain Capabilities -> Operational Performance	0.138	0.024	5.732	0.000	H3b: Supported

Source: Field data.

CONCLUSION

The study investigates the role played by supply chain capabilities in implementing supply chain integration. The findings of this work contribute to the literature of the relationship between supply chain integration, supply chain capabilities, and firm performance. This is because it is the first time a study has instantaneously explored the link between supply chain integration and all the three separate components of firm performance used in this work. Again, the findings of the research have proven the significance of supply chain capabilities in improving firm performance by testing the relationship between these variables. However, it is pertinent for firms to adopt supply chain integration to develop supply chain capabilities to improve its performance in our current uncertain business environment.

The results of the paper press on the urgent need for wholesale companies to adopt supply chain practices to develop supply chain capabilities and improve performance. Firms face a lot of challenges in sharing resources, information, expertise, and technical expertise with supply chain participants. However, firms that are able to surmount these challenges, and effectively implement supply chain integration with their customers and suppliers, have greater chances of retaining customers, differentiating products, reducing cost, improving customer satisfaction level, and reducing lead time through the development of relational, process and value-added customer service capabilities.

Again, since effective management supply chain is critical to a firm's success, it is essential for wholesale companies to partner with their supply chain members. Also, we suggest that managers of wholesale companies should adopt supply chain integration to exploit the competitive benefits in their supply chain to enhance

firm performance, rather than depending on only internal capabilities and resources which produce minimal results in today's business environment.

This study has numerous limitations. The results of this research cannot be generalised since we conducted our work in only wholesale companies. Furthermore, we ignored many measuring items of the mediating variable, supply chain capabilities, and the exogenous variable since our research interest restricts us from employing all of indicators. Further research may also explore more capabilities that firms can develop through the adoption of supply chain integration. Some may also investigate the implication of adopting supply chain integration on other firm performances such as reputation, return on investment, and environment.

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