



Supply Chain Integration and Organizational Resources and Capabilities: The Moderating Effect of Stakeholders' Support

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ABSTRACT

This study investigates the moderating role of stakeholder support in the relationship between supply chain integration and organizational resources and capabilities. This study collected Two hundred and five usable responses from top and senior managers of brewery companies and their key suppliers. Structural Equation Modelling was used to assess the hypothesized causal paths. The findings indicate that stakeholder support positively moderates the relationship between supply chain integration and organizational resources and also the relationship between organizational resources and organizational capabilities. The study has demonstrated that the effect of supply chain integration on organizational resources and capabilities is contingent on the direct and indirect support from both primary and secondary stakeholders of the supply chain. This study contributes to the literature on supply chain management by providing insights into the moderating role of stakeholder support in the relationship between supply chain integration and organizational resources and capabilities. The study highlights the importance of stakeholder support in building the necessary capabilities of a firm to provide competitive services to its customers.

Keywords: Supply Chain Integration, Organizational Resources, Organizational Capabilities, Stakeholders Support, Collaboration, Structural Equation Modelling

JEL Classifications: M110, L250

1. INTRODUCTION

Supply chain integration (SCI) has been conceptualized as the process of cooperation, harmonization, collaboration among supply chain players who manage inter- and intra-corporate operations to provide the productive and successful flow of goods and services and information to give consumers the greatest value in the right place at the right price and at the right pace (Abdallah et al., 2014; Krajewski et al., 2013; Liu et al., 2013; Flynn et al., 2010; Rai, 2021). SCI is characterized as an inter- and intra-corporate process for harmonization between supply chain partners to achieve the effective and efficient flow of goods, services, and information and to give customers maximum value in the right place at acceptable pricing and high speed. Company resources are a key factor influencing business decisions and strategies in various market scenarios (Liu and Yu, 2018). These resources, tangible (such as

cash, inventory, and physical infrastructure) and intangible (like management expertise and operational processes), play a critical role in shaping dynamic capabilities. These capabilities enable companies to adapt and respond effectively to changing conditions, impacting performance (Chen and Wu, 2021). Furthermore, integrating these resources with the supply chain enhances a company's ability to compete effectively by building necessary organizational capabilities. However, integrating supply chain components with firm resources and capabilities presents complex challenges. It requires developing and managing detailed, multi-level datasets and procedural strategies (Hitt et al., 2007). As Foss (2011) points out, scholars are actively working on methods that can effectively handle the multilevel issues involved in combining the variables of supply chain integration, firm resources, and firm capabilities. This underscores the intricate nature of this process and the need for specialized approaches.

Several studies have been conducted on supply chain integration, organismal resources, and capabilities. However, a comprehensive study that examines all these concepts from a supply chain management perspective is yet to be undertaken. For instance, Freije et al. (2022) found that internal and supplier integration positively and significantly impacts a firm's product innovation capability. Furthermore, the capability of an organization to serve its customers is not solely influenced by its resources and SCI but also by other contingent factors. From a relational perspective, a firm's resources may include the resources of its partner organizations (Dyer and Singh, 1998; Reinmoeller and Xu, 2019; Gnan et al., 2020). Therefore, the support received from these firms is crucial in their pursuit of building capabilities. Drawing inspiration from stakeholder theory, this is known as the supported relational view; the overarching question asked by this study is, *'To what extent does stakeholder support influence the relationship between supply chain integration and organizational resources and organizational capabilities?'*

This study examines the interaction between supply chain integration, organizational resources, and capabilities and how they contribute to an organisation's overall resources and capabilities. Additionally, the study investigates how stakeholder support moderates this relationship and enhances organisations' ability to leverage their resources and capabilities through effective supply chain integration. This study has demonstrated that the impact of SCI on organizational resources and organizational capabilities depends on direct and indirect support from both primary and secondary stakeholders in the supply chain. In other words, the level of support from these stakeholders affects the way SCI affects the organization's resources and capabilities. The rest of the paper is organised as follows. A review of pertinent literature is presented next, followed by a discussion of the theoretical background and research hypotheses, followed by the methodology, leading to the data analysis and discussion of results sections. The study concludes with a discussion of the implications of the study, the limitations of the present study, and recommendations for future research.

2. LITERATURE REVIEW

Supply chain integration involves the cooperation of supply chain partners to manage inter- and intra-corporate operations, leading to the efficient flow of goods and services, information, and customer value (Hamid et al., 2019; Abdallah et al., 2014). The key dimensions of supply chain integration include internal, supplier, customer, external, and information integration (Zhao et al., 2008; Flynn et al., 2010; zhao et al., 2011; Mackelprang et al., 2014; Wu et al., 2020). Internal integration aligns a company's organizational knowledge, processes, and behaviours to improve efficiency and restrict actions that may distort overall objectives (Basnet, 2013; Ralston et al., 2015). External integration involves the search for innovative and enhanced ways of servicing customers, inter-organizational exchange, and cooperation to better understand and resolve customer needs (Ittner and Larcker, 1998; Chen et al., 2009; Jüttner et al., 2007; Hammer, 2004; Thun, 2010; Flynn et al., 2010; Wang et al., 2015). Customer integration strengthens the interconnections among parties for mutual benefits, leading to

a better understanding of customer requirements and unique needs (Furlan et al., 2006; Lotfi et al., 2013). Information integration enhances customer support and demand forecasts by allowing the exchange of information within the supply chain (Amue et al., 2014).

Internal barriers, conflicting priorities, and divergent goals within an enterprise can challenge supply chain integration (SCI). These challenges can make it difficult to achieve a harmonized structure for the supply chain (Sambasivan et al., 2011). Another potential risk associated with SCI is the possibility of revealing confidential information to competitors, which can be costly for some organizations (AlSagheer and Ahli, 2011). Additionally, a company's culture can affect its ability to integrate with other supply chain members. Companies often find it difficult to adjust their practices and procedures, which limits their ability to establish connections with other members (Ralston et al., 2015). To succeed in the market, businesses must expand their resource portfolios based on their existing resources, creating asymmetries in competition for new resources (Wernerfelt, 2011). Finally, a company's capabilities are critical elements that help facilitate learning, incorporate new resources, and reconfigure resources to serve the market, which can benefit the company (Eisenhardt and Martin, 2000).

Firm capability is therefore important to the success and improvement of all types of SCI in the business environment (Faems et al., 2008; Zhang and Yang, 2016). The integration of critical values, either cultural, technical, systemic and other capital and capacity for novelty, strengthens the company's capacity for absorption to obtain, assimilate, turn and leverage external resources for better market results (Zahra and George, 2002; Ainuddin et al., 2007; Mithas et al., 2011; Lisboa et al., 2011). This, therefore, requires an integrative approach involving all key stakeholders of the supply chain to ensure that they deliver value to the customer and the firm's profitability. Stakeholders are persons or groups that claim ownership, rights, or interests in a firm and its past, present, or future activities. Stakeholders could be internal and external. Internal stakeholders have a more direct relationship with the company, typically staff members and managers. The external stakeholders usually include creditors and suppliers, but they also include larger groups such as trade unions, government regulators, and community groups (Bryson, 2004) (Ackermann and Eden, 2011). The support given by its stakeholders helps the company develop capital and production in a competitive environment (Scholes and Johnson, 2002; Rahman et al., 2021).

2.1. Empirical Review of Supply Chain Integration Outcomes

Some previous studies have been conducted on the outcomes of supply chain integration on firms' performance. Hamid et al. (2019) investigated the effect of Supply Chain Integration (SCI) on service Organizations and Operational Performance (OP). Fifka et al. (2015) also investigated the impact of managing Stakeholders for the Sake of Business and Society. Alfalla-Luque et al. (2015) examined the interconnections between employee commitment and supply chain integration dimensions. Barney et al. (2011) reviewed the literature on firm resources, and Hajek

et al. (2014) assessed the effect of annual reports' sentiment in forecasting financial performance. Feng et al. (2015) assessed the effect of firm-level capabilities on firm growth under different market conditions in USA, Hamad (2013) assessed the effect of SCI on organizational performance on the food industry firms in Jordan, Han et al. (2013) assessed the effects of SCI on firm performance in pork supply chains in China, Gimenez (2011) assessed the effectiveness of SCI in varied contexts, Spitzec et al. (2011) assessed how stakeholders are voluntarily granted influence in corporate decision making, Fabbe-Costes et al. (2008) assessed relationship between SCI and performance, Al-Lamy et al. (2008) applied the measurements of supply chain variables performance, Fabbe-Costes et al. (2008) assessed opposing views on Integration and performance, Lenssen et al. (2007) assessed elements that promote or impede innovation of firms due to the engagement with the stakeholders, and Herczeg et al. (2018) assessed relationships between various features of SCI and firm performances. The review of the literature revealed some important gaps. First, prior studies have not examined the relationship between supply chain integration, firm resources and capabilities, and stakeholder support. Finally, the unique context of Africa has not been examined in prior empirical supply chain integration research. The present study helps to address these research gaps.

2.2. Theoretical Background

The study was hinged on the stakeholder's theory. The foundation of the theory hinges on the thought that each stakeholder has its own business agenda, values and a certain set of objectives. The theory, therefore, implies that remembering that satisfying both parties equally can be an impossible task for companies, and managers must prioritize (Fitzgerald and Storbeck, 2003). The satisfaction of various players is regarded as a variable in the firm's success (Agle, et al., 1999; Waters et al., 2009). The stakeholder's theory emphasizes the underlying convergence of stakeholder interests in value creation and defines a business operation as a way for all stakeholders to change over time (Freeman et al., 2007; Sachs and Rühli, 2011). Stakeholder theory can be applied to this study's environment to investigate the effects of various stakeholders, including consumers, employees, suppliers, and investors, on business performance and competitiveness (Doh and Quigley, 2014). The idea can be used to investigate how stakeholder involvement and support for a company might result in higher levels of innovation, greater consumer satisfaction, and enhanced financial success. In addition, the relational view is used in this study as a complementary perspective to stakeholder theory to examine how supply chain integration can promote efficient cooperation and communication between a company and its suppliers, which in turn can result in improved performance outcomes (Cao and Zhang, 2011; Kim and Choi, 2019; Wu et al., 2020). The relational approach can help recognize and manage the interdependencies between a company's resources and partners' capabilities (Gulati et al., 2000). For instance, to accomplish efficient supply chain integration, a company may need to coordinate its capabilities with its suppliers (Li et al., 2019).

2.3. Research Model and Hypotheses

The study's research model proposes that firms that practice high levels of supply chain integration are needed to enhance

organizational resource mobilisation, and these resources, in turn, become the organization's capability to provide a competitive service to its customers. Additionally, the model proposes that the relationships between SCI, organizational resources and subsequent capabilities are contingent on the relevant support it receives from its stakeholders. The research model in Figure 1 depicts the relationship between supply chain integration and organizational capabilities. It further shows the relationship between supply chain integration, organizational resources and capabilities. It further shows the moderating role of stakeholder support in the relationship between supply chain integration and firms' resources and between organizational resources and capabilities.

In a fast-changing environment where supply chains operate, firms are expected to build the needed capabilities to survive in the unpredictable and dynamic business environment (Inan and Bitici, 2015). Organizational capability is the firm's ability to perform a coordinated task, utilizing organizational resources to achieve the desired end results (O'Regan and Ghbadian, 2004). This suggests that organizational resources (both tangible and intangible) enable a firm to build the capability required to face a dynamic and changing business environment to meet the changing customer preferences. The study proposes a direct relationship between organizational resources and organizational capabilities. The goal of SCI is to provide its customers with optimum value. The partnership between Supply chain partners allows businesses to achieve higher outputs than those with low integration levels. SCI assists firms in pulling resources and capabilities from each other to mutually design products to improve product quality and reduce task duplication

Figure 1: Research model. This diagram illustrates the relationships between firm resources, capabilities, and supply chain integration, emphasizing their impact on firm performance

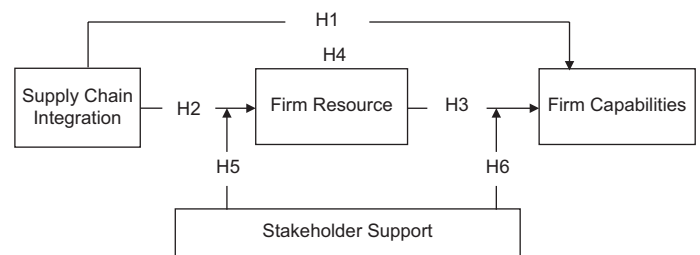
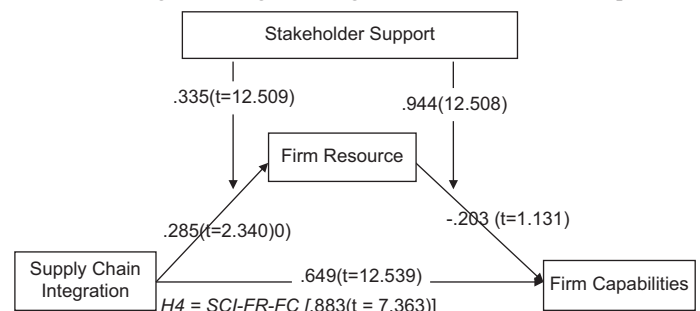


Figure 2: Structural model. This structural model displays the quantitative relationships and hypothesized pathways between stakeholder support, firm resources, firm capabilities, and supply chain integration. Each path is annotated with coefficients and t-values, indicating the strength and significance of the relationships



(Flynn et al., 2010; Schoenherr and Swink, 2012). Furthermore, SCI helps producers to reduce mistakes in the capabilities of new product creation, promote product quality, flexibility and innovation, as well as product competitiveness, through information-sharing and joint planning (Petersen et al., 2005); (Koufteros et al., 2007; Swink et al., 2007; Qu et al., 2021; Lim et al., 2021). The extent to which customers and suppliers are integrated into the operations of the focal firm and the extent to which internal functional departments are aligned through effective coordination and collaboration lead to efficient organizational resource utilization, which enhances organizational capability building. Viable organizational resources and capacity enable businesses to incorporate and improve information sharing with their partners to ensure their presence across the supply chain so that essential products and services can be purchased and monitored (Pieter and Van, 2008). Based on the aforementioned propositions, the study hypothesized that:

H₁: There is a positive relationship between SCI and Firm Capabilities

H₂: There is a positive relationship between SCI and firm resources

H₃: There is a positive relationship between firm resources and firm capabilities

Organizational resources mediate the relationship between the firm's capabilities and the SCI through sound decision-making about how the firm's capabilities and supply chain can be tailored to achieve inimitable advantage and superior results. Therefore, combining resources between different supply chain members needs greater coordination for optimum results (Priem and Butler, 2001; Gnan et al., 2020). The mediation is because the firm resources comprise a collection of efficient and distinctive resources that can be tapped to produce value and competitive advantage (Wernerfelt, 1984). The more valuable and limited the capital, the more benefit the company would have pointed out. Because resources are distributed heterogeneously and imperfectly among companies, the specific resources of a company could result in persistently superior results. Insofar as a company's resources are matchless and non-substitutable, there can be a sustainable competitive advantage (Priem and Butler, 2001; Chahal, 2020; Ketchen and Bergh, 2020; Banerjee, 2019). This approach to RBV emphasizes the need to build a "different" resource base. This "static view of RBV has increased to focus on how an organization incorporates and uses its resources to achieve a higher capability through integrating its business partners, including customers and suppliers. Resource ownership is required for competitive advantages, but it is insufficient. Sufficiency depends on how the organization organizes its resources to develop specific capabilities and values (Teece et al., 2004). This RBV conceptualization of "dynamic capacity" argues that the real difference is how a business grows and sets resources to optimize its competitive potential (Eisenhardt and Martin, 2000). The RBV has thus "built itself into a complex recipe to describe the mechanism by which company resources can be used to provide a competitive advantage. This also implied the firm's ability to work together (Pavlou and El Sawy, 2011).

Again, the availability of sound resources based on the firm helps adjust the firm's operations given the changing environment (Teece, 2014; Allred et al., 2011; Delios and Yang, 2019; Toh et al., 2021). The ability of the company to integrate, construct,

and reconfigure internal and external competencies, as well as coordinate and integrate consistently, produces a capacity-building process (Pavlou and El Sawy, 2011). These implied that firm resources produce a seamless bridge as a foundation for successfully integrating with key partners for enhanced capabilities. Therefore, firms' management should endeavour to possess distinctive resources to help decision-makers implement strategic decisions to gain an inimitable profit through a dynamic willingness to integrate into the business environment. The study, therefore, hypothesizes that:

H₄: Firm Resources positively mediate the effect of SCI on Firm capabilities

Stakeholders have much to contribute to the success and growth of an organization. Firms perform better when they see stakeholder interests as joined, or at least largely overlapping, than firms that see them as primarily conflicting (Freeman et al., 2004; 2007). Real businesses should work in ways that attract stakeholders and build enough overlap to work for them. It can also be added that various stakeholders have different desires and needs for involvement in collective action. Therefore, the support of stakeholders willing to work together is a significant pillar in creating a representative governance system and a larger group of stakeholders working together to maintain the firm in a competitive business climate (Tolunay et al., 2014). Since it is important to help stakeholders, the inability to respond to stakeholder information and concerns clearly constitutes a thought or action fault, often leading to poor results, an absolute failure or even catastrophe (Arenas et al., 2009; Margerum, 2002). Stakeholder support through analyses helps managers enhance their organization's performance or build a favourable atmosphere that will indirectly improve corporate performance (Elms et al., 2011; Liu et al., 2021; Li et al., 2020). Therefore, it is crucial to recognise stakeholders' support and their interconnections. In reacting to a certain organizational behaviour, stakeholders do so in support of other stakeholders and the focus organization. Many other stakeholders can take measures to generate a dynamic response. The power of one stakeholder in relation to its role in the network of other stakeholders is also defined in the same way. Freeman et al. (2010) reviewed the current empirical literature generally supports a positive relationship between stakeholder support and corporate capability (Hillman and Keim, 2001; Choi and Wang, 2009). The longevity and continuous success of the companies rely on their managers' ability to generate enough wealth, value or satisfaction for the stakeholders (Bryson et al., 2011).

Henisz et al. (2014) assert that organizations and their stakeholders are interdependent. For a firm to survive and thrive, its stakeholders—such as customers and suppliers—must be on board. As demonstrated by examples like Dow Corning's failure to garner stakeholder and consumer support in 1991, which resulted in the collapse of its product and removal from the top spot in the market for breast implants, the company may suffer severe consequences if any stakeholder is dissatisfied and decides to leave. Similarly, suppliers discontinuing investments in the company's commercial papers led to Olympia and York's bankruptcy in 1992. A company's ability to generate and distribute wealth for its stakeholders depends on its economic and social capabilities (Hörisch et al., 2014). Stakeholders can aid in addressing social issues like

racial inequality in the workplace, environmental pollution, product safety, and health and safety regulations. Firms must communicate their goals and missions to their business partners to preserve stakeholder support (Hörisch et al., 2014). Businesses should acknowledge the crucial concerns of their stakeholders and collaborate to ensure success for all parties. Therefore, a company must have the support of its stakeholders to succeed, endure and maintain a robust and active market environment. On this basis, the study proposes that:

H₃: Stakeholders Support moderates the relationship between SCI and Firm Resources

H₆: Stakeholder support moderates the relationship between firm resources and firm capabilities.

3. METHODOLOGY

The research study methodology involves adapting measures from existing literature and conducting a survey using a multistage cluster sampling technique to sample 290 respondents, with 205 usable responses obtained through convenience sampling. The study utilized established measures for supply chain integration, organizational resources, organizational capabilities, and stakeholder support that were adapted from existing literature with little modification (Zhao et al., 2008; Flynn et al., 2010; Zhao et al., 2011; Mackelprang et al., 2014; Wernerfelt, 2011; Barney et al., 2011; Maritan and Peteraf, 2011; Terziovski, 2007; Camison et al., 2014; Feng et al., 2015; Wang et al., 2015; Iglesias et al., 2013; Payne et al., 2009; Gyrd-Jones and Kornum, 2013; Lankoski et al., 2016). Specifically, supply chain integration was operationalized as internal integration, supplier integration, and customer integration; organizational resources were operationalized as physical and nonphysical assets; organizational capability was conceptualized in terms of innovation, information, and relational capabilities; and stakeholder support was operationalized as primary and secondary stakeholder support.

The study setting was Ghana, and the sampling frame was composed of managers, supervisors, and other top strategic

positions of local brewery manufacturing companies and their strategic suppliers and customers, transporters, wholesalers, and retailers. This was done to improve data accuracy and reduce common method biases. The study first obtained the list of participants from the brewery manufacturing companies. A 5-point Likert Scale questionnaire, ranging from 1- strongly disagree to 5- strongly agree, was developed and used to collect data. Data from various sources were collected at different times. Structural Equation Modelling (SEM) was used to assess the hypothesized causal paths among the constructs (Hair et al., 2019). SEM is a family of statistical procedures that analyses multiple relationships among latent constructs using equations that are very similar to multiple regression equations. To ensure the validity and reliability of the questionnaire, Confirmatory Factor Analysis (CFA) and the Cronbach Alpha were used to test (Saunders, 2017). The Cronbach Alpha score was used to determine the reliability of test items or indicators in the questionnaires, with indicators scoring 0.7 or higher generally considered reliable.

4. RESULTS AND DISCUSSION

4.1. Demographic Characteristics

Table 2 shows the demographic characteristics of the respondents. 61% of the respondents are male, implying a male-dominated industry. Regarding their educational background, 75% of the respondents have tertiary-level education. On average, most respondents are between 26 and 45 years old, implying an active working force and 63% have more than 10 years of industrial experience.

4.2. Measurement Model Results

Structural equation modelling (AMOS-SEM) analysis was employed to analyse the research model. The AMOS-SEM analyses are presented by first presenting the results for the measurement model, followed by comprehensive structural model results. The model analysis was done by performing relevant tests to ensure they meet the appropriate thresholds as recommended (Hair et al.,

Table 1: Definitions of key terms

Construct	Definition	Dimensions	Sources
Supply chain integration	The extent to which a firm coordinates and collaborates with its supply chain partners to achieve common goals and maximize overall performance	Internal integration (within the firm), external integration (with supply chain partners), information sharing, relationship quality	Li and Liu (2014)
Firm resources	The assets, capabilities, and knowledge that a firm possesses and controls can be used to create and sustain competitive advantage	Tangible resources (e.g., physical assets, financial resources), intangible resources (e.g., human capital, intellectual property), organizational capabilities (e.g., management systems, innovation processes)	Barney (1991)
Firm capabilities	The specific skills, processes, and routines that a firm develops and employs to create value for customers and generate competitive advantage	Dynamic capabilities (e.g., the ability to innovate, learn, and adapt), operational capabilities (e.g., the ability to execute efficiently), strategic capabilities (e.g., the ability to identify and exploit opportunities)	Teece (2007)
Stakeholder support	The level of support and commitment a firm receives from its various stakeholders (e.g., customers, employees, investors, community members)	Customer support, employee support, investor support, community support	Freeman (1984)

2019). The indicator loadings were examined to ensure they were sufficiently high. Items loadings below 0.70 were dropped as recommended (Hair et al., 2019). Reliability was operationalized as internal consistency and established through the computation of Cronbach Alpha. A coefficient reliability of 0.70 or higher indicates that the instrument used is reliable (Cronbach, 2004). In order to analyse the data in relation to constructs, the researcher measured the constructs by employing the Confirmatory Factor Analysis (CFA) and this was achieved by using the Kaiser-Meyer-Olkin and the factor loading of the items. The Kaiser-Meyer-Olkin (KMO) measure of adequacy and Bartlett's test of Sphericity of 0.5 is acceptable. Also, factor loadings of items with an acceptable threshold of 0.7 are acceptable, as indicated in Table 3.

This study conducted construct validity tests, including convergent and discriminant validity. Convergent validity assesses the level of correlation between multiple indicators of the same construct, while discriminant validity examines the extent to which measures of different constructs are distinct. The ten constructs evaluated were Internal Integration, Supplier Integration, Customer Integration, Physical Assets, Non-Physical Assets, Primary Stakeholders Support, Secondary Stakeholders Support, Innovation Operational Capability, Information Marketing Capability, and Relational Capability. The study used the average variance extracted (AVE)

to test convergent validity and found that all constructs met the AVE threshold of >0.50.

Discriminant validity, on the other hand, measures the degree of differences between the overlapping constructs (Hair et al., 2019). Fornell and Larker (1981) argue that discriminant validity exists if the latent variable shows more variance on related indicator variables rather than share with another construct in the same model. The results presented in Table 4 indicate that the correlation value of both constructs is lower than 0.85, which means that discriminant validity exists, according to Hair et al. (2019). Also, the Internal integration Discriminant Validity (DV) of 0.831, Supplier Integration Discriminant Validity (DV) of 0.841, Customer Integration Discriminant Validity (DV) of 0.844, Physical Assets Discriminant Validity (DV) of 0.842, Non-Physical Assets Discriminant Validity (DV) of 0.843, Primary Stakeholders Support Discriminant Validity (DV) of 0.824, Secondary Stakeholders Support Discriminant Validity (DV) of 0.745, Innovation Operational Capability Discriminant Validity (DV) of 0.739, Information Marketing Capability Discriminant Validity (DV) of 0.818 and Relational Capability Discriminant Validity (DV) of 0.838 were greater than the inter-construct correlation therefore the ten constructs had fulfilled the criteria of discriminant validity as shown in Table 5.

Table 2: Demographics of respondents

Characteristic	Frequency (%)
Gender	
Male	125 (61)
Female	80 (39)
Age	
Below 25	39 (19)
26–40	84 (41)
41–45	64 (31)
51 years and above	18 (9)
Education	
HND	59 (29)
Bachelor	73 (36)
Masters	19 (9)
PhD	3 (1)
Others	51 (25)
Experience (years)	
Below 5	0
6–10	75 (37)
11–15	125 (61)
16 and above	5 (2)

Table 3: Reliability test

Construct indicators	Number of items	Cronbach's alpha	KMO
Internal integration	3	0.911	0.747
Supplier integration	3	0.923	0.793
Customer integration	3	0.905	0.742
Physical assets	5	0.965	0.845
Nonphysical assets	4	0.955	0.826
Primary stakeholders support	5	0.944	0.886
Secondary stakeholders support	3	0.878	0.789
Innovation operational capability	3	0.854	0.677
Information marketing capability	4	0.923	0.692
Relational capability	2	0.883	0.805

KMO: Kaiser–Meyer–Olkin

4.3. Structural Model Results

The structural model was assessed after focusing on reliability and validity tests, as depicted in Figure 2. The structural model assessment was done after the model assessment focused on the reliability and validity tests. The structural model assessment presents unstandardized regression coefficient of supply chain integration and firm resources of 0.65; supply chain integration and firm capability of 0.34; firm resources and firm capability of -0.20; stakeholder, supply chain integration and firm resources of 0.28 and finally the stakeholder, supply chain integration and firm capability of 0.94. Since the unstandardized regression coefficient represents the amount of change in the dependent variable per single unit change in the predictor variable, the results suggest that for every single unit of increase in supply chain integration, firm resources and firm capability is increased by 65 units and 34 units respectively. For every unit of increase in firm resources, firm capability is reduced by -20 units. A single unit increase in stakeholder support, supply integration, and firm resources is increased by 28 units. The structural model ($\beta = 0.285$; $t = 2.340$; $P < 0.019$) indicates that supply chain integration positively and significantly influences firm capability. ($\beta = 0.649$; $t = 12.539$; $P < 0.000$) establish a positive and significant influence of supply chain integration on firm resources. ($\beta = -0.203$; $t = 1.131$; $P < 0.258$) statistically indicate that firm resources have a negative significant influence on firm capability. ($\beta = 0.883$; $t = 7.363$; $P < 0.000$) indicate that firm resources positively and significantly mediate the relationship between supply chain integration and firm capability. The ($\beta = 0.335$; $t = 12.509$; $P < 0.000$) statistically establish that stakeholders support positively and significantly moderate the relationship between supply chain integration and firm resources. The ($\beta = 0.944$; $t = 12.508$; $P < 0.000$) statistically suggests that stakeholder support positively and significantly moderates the relationship between firm resources and firm capability.

Table 4: Convergent and discriminant validity

Latent variables	Number of indicators	AVE	Discriminant validity
Internal integration	3	0.691	0.831
Supplier integration	3	0.708	0.841
Customer integration	3	0.712	0.844
Physical assets	5	0.709	0.842
Nonphysical assets	4	0.711	0.843
Primary stakeholders support	5	0.679	0.824
Secondary stakeholders support	3	0.555	0.745
Innovation operational capability	3	0.547	0.739
Information marketing capability	4	0.669	0.818
Relational capability	2	0.701	0.838

AVE: Average variance extracted

Table 5: Summary of the correlated values

Construct indicators	1	2	3	5	6	7	8	9	10	11
Internal integration	1									
Supplier integration	0.259**	0.1								
Customer integration	0.266**	0.341**	1							
Physical assets	0.318**	0.422**	0.403*	1						
Nonphysical assets	0.319	0.401**	0.489*	0.421*	1					
Primary stakeholders support	0.438**	0.371**	0.402**	0.497**	0.498**	1				
Secondary stakeholders support	0.418**	0.326	0.503**	0.483**	0.420**	0.412**	1			
Innovation capability	0.442**	0.432	0.401**	0.441*	0.417*	0.401**	0.406**	1		
Information capability	0.349**	0.397**	0.424*	0.404	0.403*	0.414**	0.443**	0.384**	1	
Relational capabilities	0.466**	0.441**	0.415**	0.409**	0.440*	0.526**	0.424**	0.403**	0.402**	1

Table 6: Summary of hypotheses results

Hypothesis	Paths	β	T	P<0.05	Remarks
H1	SCI→OC	0.285	2.340	0.019	Supported
H2	SCI→OR	0.649	12.539	0.000	Supported
H3	OR→OC	-0.203	1.131	0.258	Not supported
H4	FR→SCI→FC	0.883	7.363	0.000	Supported
H5	SHS→SCI×OR	0.335	12.509	0.000	Supported
H6	SHS→FR×FC	0.944	12.508	0.000	Supported

Table 6 shows supply chain integration’s positive and significant influence on organizational capabilities. Hypothesis 1 was validated. Hypothesis 2 also tested the positive and significant influence of supply chain integration and organizational Resources and supported it. However, hypothesis 3, which tested the influence of organizational resources on organizational capability, was not supported. Further, the results for hypothesis 4 indicate that organizational resources positively mediate the relationship between Supply chain integration and organizational Capabilities. The hypothesis is also supported. Stakeholder support is used in this study to moderate the relationships between 1) supply chain integration and organizational resources and 2) organizational resources and capabilities. The results indicated that Stakeholder Support moderates the relationship between Supply Chain Integration and organizational resources positively and significantly. Interestingly, the direct effect of organizational resources on organizational capabilities was negative, but when moderated by stakeholders, the relationship between organizational resources and organizational capabilities becomes significantly positive. The result indicates that the relationship between organizational resources and organizational capabilities is indirectly moderated by stakeholder support.

4.4. Discussion

The study supported all the hypotheses but one, indicating that supply chain integration, organizational resources, organizational capabilities, and stakeholder support are directly or indirectly related.

First, the study indicates a significant positive effect of supply chain integration and organizational capabilities, which confirms the study of Hamid et al. (2019), which indicates a positive and significant relationship between SCI and firm capabilities. The results indicate that managers of firms adopt pragmatic steps to get the collaboration of suppliers, customers and internal functional areas to build the needed capabilities for operational activities for better performance and stay competitive. The study also corroborates the study of Wook Kim (2006), who examined the relationship between innovation capability and SCI and produced a positive connection between SCI and firm capabilities. The study also supports the idea that integration provides opportunities for firms to enhance their understanding of the domestic markets, advance combinative skills, and introduce innovative products that echo local limitations, which institute distinctive capabilities for the firm (Teecce, 2014).

5. CONCLUSION

The study found a strong and positive relationship between Supply Chain Integration (SCI) and a company's resources. According to Flynn et al. (2010) and Schoenherr and Swink (2012), integrating a supply chain helps companies collaborate and share resources and capabilities. This leads to the joint development of higher-quality products and reduces task duplication. When a supply chain is integrated, it allows for better mobilization of organizational resources and their more effective utilization. The study's conclusions indicate that business resources significantly and negatively impact a firm's capability. Organizational capability is the ability of a company to coordinate its activities and utilize its resources to achieve specific results, as defined by O'Regan and Ghebadian (2004). The study suggests that organizational resources, whether tangible or intangible, can help a company develop the capacity to adapt to a dynamic business environment and changing customer preferences. It is important to note that this statement is only valid when referring to resource utilization rather than static resources, as static resources can make it harder to develop capabilities. It is possible to transform static resources into capabilities to gain a competitive advantage and improve performance, according to Erickson and Martin (2000) and Tantalo et al. (2021).

The study further tested the mediating role of organization resources on the relationship between SCI and organization capabilities. It was revealed that firm resources are critical in influencing SCI variations on firm capabilities. For instance, the study revealed that approximately 49% of the variation of SCI on firm capabilities in the operation of the brewery companies can be explained by the presence of firm resources. That is an increase of 1% due to the influence of firm resources, resulting in a 49% variation of SCI on firm capabilities. Thus, firm Resource facilitates the relationship between SCI and organization capabilities positively and significantly. The existence of viable firm resources and capability, therefore, makes it possible for firms to assimilate and enhance the quantity of information they exchange with their partners to ensure that there is visibility across the supply chain so that required goods and services can be sourced and tracked (Pieter and Van, 2008). Based on this finding, the presence of the relationship between SCI and resources and the firms' capabilities brings about improved firm output, value creation, operational cost reduction and a boost to firms' profitability (Beheshti and Hultman, 2014). On the moderating role of Stakeholder Support on the relationship between organizational resources and organizational capabilities, though the direct of organizational resources on organizational capability was found to be insignificant, the study revealed that Stakeholder Support positively and significantly moderate the relationship between organizational resources and organizational capabilities. An efficient approach to identifying stakeholders, clarifying their interests, assessing their power and its sources, and determining how they might best be engaged in the design and implementation of the progress and development of a firm is essential to the survival of a particular institution (Ackermann and Eden, 2011).

This paper presents the findings of a study which assesses interrelationships between the v of SCI, organizational Resources, and organizational capabilities, with Stakeholders' Support acting as a moderator. A theoretical model developed from literature was tested on a sample of managers in the brewery manufacturing firms. SCI was found to relate positively to organizational resources and capabilities. The study has shown that stakeholders' support influences and positively facilitates the relationship between SCI and organizational resources and the relationship between organizational resources and organizational capabilities.

This study contributes to existing literature in many ways. First, the study develops a theoretical model that illustrates the interrelationships among SCI, organizational resources, organizational capabilities, and stakeholder support. The model is based on the existing literature and provides a framework for understanding the relationships between these constructs. Secondly, the study provides empirical evidence to support the theoretical arguments that SCI can lead to developing organizational resources and capabilities. The results show that SCI is positively related to organizational resources and capabilities, which supports the theoretical argument that integration can lead to improved supply chain performance. Furthermore, the study highlights the importance of stakeholder support in moderating the relationship between SCI and organizational resources and the relationship between organizational resources and organizational capabilities. This new theoretical contribution suggests that stakeholder support can facilitate the development of organizational resources and capabilities. The findings of this study have important implications for business practice. To sustain resources and improve the firm's relational image, management must create an enabling environment that involves key stakeholders in business operations. Managers must take pragmatic steps to involve and gain the support of key stakeholders in operational activities to achieve the firm's strategic and operational goals. Without the involvement of key stakeholders, critical decisions regarding the organization's operations may be delayed. Furthermore, integration presents opportunities for firms to enhance their understanding of domestic markets, develop combinative skills, and introduce innovative products that reflect local constraints, leading to distinctive capabilities. Therefore, managers of local industries should prioritize integrating their core business operations with key stakeholders to build capabilities and remain competitive.

While this study sheds light on the interrelationships between supply chain integration, firm resources and capabilities, and stakeholder support in the brewery manufacturing subsector, some limitations should be acknowledged. Firstly, the study focuses on specific supply chain integration constructs (internal integration, supplier integration, and customer integration) and their impact on organizational resources and capabilities. However, various other types of supply chain integration constructs exist across different industries and contexts. Therefore, future studies should consider testing these constructs in different contexts to expand our understanding of their effects. Additionally, the study does not control for firm size, which could impact the relationship between

the constructs examined. Hence, future studies could control for firm size to determine if the results are consistent across firms of different sizes.

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