



Unleashing Supply Chain Excellence: The Synergistic Role of Organizational Ambidexterity, Integration, and Resilience in Driving Performance

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ABSTRACT

This study explored the effects of organizational ambidexterity, supply chain integration, and supply chain resilience on supply chain performance using the Resource-based View (RBV) and Organizational Ambidexterity Theory (OAT). The cross-sectional, quantitative study employed a structured questionnaire for data collection from a systematic random sample of 137 manufacturing organizations registered with the Board of Investment (BOI) in Sri Lanka. Data analysis was conducted using SPSS 20.0 and Structural Equation Modeling with Smart PLS. Findings indicate a significant positive impact of supply chain integration, resilience, and organizational ambidexterity on supply chain performance. Organizational ambidexterity notably influences supply chain integration and resilience. Additionally, supply chain integration significantly enhances resilience. The study also identified the mediation role of supply chain resilience between integration and performance, and both resilience and integration as partial mediators between ambidexterity and performance. Thus, this study makes a major theoretical contribution to the RBV by highlighting the importance of supply chain resilience and organizational ambidexterity for enhanced supply chain performance through an integrated supply chain. It highlights how Sri Lankan manufacturing companies seek innovative ways to meet customer demands and adapt to a dynamic business environment through integration, resilience, and ambidexterity.

Keywords: *Organizational Ambidexterity, Organizational Ambidexterity Theory (Oat), Resource Based Theory (RBV), Supply Chain Integration, Supply Chain Resilience*



1. INTRODUCTION

Contemporary business organizations must constantly be prepared for potential interruptions along the supply chain because of the complexity and ever-changing business climate (Kovács & Sigala, 2021). The manufacturing industry in Sri Lanka has been a key contributor to economic growth, accounting for approximately 15% of the GDP and employing a significant portion of the workforce (Karunaratna et al., 2023). Despite the abundant global demand and huge manufacturing propensity, Sri Lanka's manufacturing industry has been subject to severe hazards in previous months and years because of the complicated issues experienced by operational, production, and supply chain interruptions (Karunaratna et al., 2023). As competition grows in the global economy, businesses are constantly seeking new and better ways to gain a competitive edge. In light of this, supply chain professionals and managers consider integration an avenue for creating strategic alliances that boost supply chain performance, efficiency, and lead time (Gligor et al., 2019). It has been stressed out that supply chain integration (SCI) is essential for firms to remain in the dynamic and competitive markets (Donadoni et al., 2018; Flynn et al., 2010).

Furthermore, in the fast-paced business environment, the insignificant direct influence of the supply chain integration may be associated with such reasons as possible threats or dissimilarities that are likely to create unexpected relationships with performance (Lu et al., 2018). Moreover, resource-based view (RBV) theory has come up as an acceptable theory for establishing the connection between supply chain integration and supply chain performance thus showing that possession of huge amount of resources that are rare and interchangeable may not guarantee a competitive advantage within a volatile and chaotic environment (Yang et al., 2015). The manufacturers should also be flexible in the face of changes by modifying the way they use their supply chains. As such, the RBV theory may not be readied to explain how effective the supply chain integration may be able to trigger supply chain performance, which would explain the contradictory findings reached (Yu et al., 2013; Zahra, 2021). In spite of this, the integration of the supply chain may not necessarily guarantee a constant rate of supply chain performance (Huang et al., 2014).



Practitioners and scholars have started to understand the value of Supply Chain Resilience (SCRES) as a major capability that may help businesses in anticipating, preparing and responding to the volatility on the supply chain (Ali et al.,2017; Opoku, 2025). Companies that foster a resilient culture are better able to anticipate and recover from shock (Abeysekara et al., 2019; Chowdhury et al.,2016). Supply chain resilience and Organizational Ambidexterity Theory (OAT) both point out that a company operates in an extremely volatile atmosphere to cooperate, integrate, amalgamate, and restructure its resource base to adapt to changing market conditions and achieve competitive advantage (Aslam et al., 2024; Teece,2014) However, in the modern economic climate, it is not certain that a company will be successful in implementing supply chain performance if it relies entirely on integration throughout the supply chain network. Consequently, supply chain resilience is vital to the continued existence of a company (Abdelaziz & Munawaroh, 2024; Ambulkar et al.,2015; Azmat et al., 2022; Brandon et al.,2014).

In tumultuous and challenging climates, the resilience of manufacturing businesses is established and strengthened when they effectively attain the potential to explore new things and leverage current resources) (Lee and Rha, 2016; Singh and Modgil, 2024). In businesses, direction and stability can be communicated through the constant allocation of resources for exploration and exploitation, which is referred to as organizational ambidexterity. Organizational ambidexterity is a key factor in the development of the resilient supply chains.(Singh & Modgil, 2024; Shukor et al.,2020). As a crucially important dynamic capability, ambidexterity was initially referred to as a trade-off through which a corporation strikes a balance between exploiting current certainty and exploring new possibilities (Duncan, 1976).

To shed light on this phenomenon, this study utilizes organizational ambidexterity theory (OAT) with RBV to explain the role of organizational ambidexterity and supply chain resilience in managing the supply chain integration necessary for supply chain performance. This research addresses the theoretical and empirical gaps in understanding the interplay between organizational ambidexterity, supply chain integration, resilience, and performance. By examining these four critical aspects as a unified model within Sri Lanka's manufacturing sector, this study aims to overcome the limitations of the RBV in explaining supply chain



dynamics in unpredictable environments. However, neither the resilience capacities of organizations nor the value of organizational ambidexterity has been investigated or empirically verified, along with an integrative perspective on supply chain management. Thus, the current study addresses the paucity in empirical findings and theoretical explanations that address the question as to does organizational ambidexterity will lead to enhanced supply chain performance by considering the role of supply chain integration and the resilience capability within the supply chain

2. LITERATURE REVIEW

2.1. Supply Chain Integration

Supply chain integration is refers to the to which a corporation is able to develop the seamless integration of all operations inside the entity's internal processes and its outside collaborators, such as suppliers, distributors, and retailers, from the point where a product is first created to the point where it is purchased by the final consumer (Korpeoglu et al., 2020, Xu et al., 2014; Zhao et al.,2013). The existing literature identifies three main categories of supply chain integration (SCI): customer integration, supplier integration, and internal integration (Silva et al., 2024, Flynn et al., 2010; Huo, 2012). The term "Internal integration" (II) is used to describe the synchronization of activities among departments (Korpeoglu et al., 2020; Frohlich et al., 2001). It gives an overall picture of the companies, and it helps managers in each department get precise data on orders from customers, production schedules, WIP, incoming and outgoing inventory, and other financial and accounting matters. The term "supplier integration" (SI) signifies the level of integration to which a manufacturer and its vendor companions collaborate on strategic issues such as capacity scheduling, projections of demand, inventory control, replacement, and the movement of materials. Customer integration (CI) contrasts this by referring to the extent towards which producers and their customers collaborate on decisions regarding demand forecasts, manufacturing planning, order status, and delivery process (Korpeoglu et al., 2020; Wong et al., 2011). Academics and specialists in the field of supply chains are emphasizing the importance of integration and mutually beneficial collaborations among the various supply chain players. (Shou et al., 2018; Frohlich et al., 2001). It appears that most extant studies deconstruct Supply Chain Integration

into its individual constructs, such as supplier, customer and internal integration (Jajja et al., 2018). On the other hand, there are empirical works that unified all Supply Chain Integration components into a single construct (Silva et al., 2024; Tseng et al., 2015; Huang et al., 2014).

2.2. Organizational Ambidexterity

The term "organizational ambidexterity" was first introduced by Duncan (1976) to describe how companies simultaneously pursue both exploratory and exploitative activities. Companies that exhibit the capacity to concurrently engage in exploitation and exploration are deemed ambidextrous (O'Reilly & Tushman, 2008; Senaratne & Wang, 2018). More recently, ambidexterity has been conceptualized as a dynamic capability (O'Reilly & Tushman, 2008). Numerous approaches exist for assessing ambidexterity within the supply chain network. Many of the scholars identifies supply chain exploitation as a conventional strategy in supply chain management that focuses on specific, short-term measurable targets, risk reduction, operational efficiency and emphasizing consistency (Levinthal and March, 1993). Moreover, supply chain exploration is defined by features such as "long-term success," "creativity" and "unpredictable outcomes," (Levine et al., 1999; Levinthal & March, 1993; Ojha et al., 2018; Partanen et al., 2020).

2.3. Supply Chain Resilience

The supply chain resilience refers to the capacity of the organizations to handle disruptions and management of operations through communal use of resources and adjustment to changes in situations. An essential characteristic of resilient supply chains is "market sensitivity or the capacity to understand and adapt to demand while minimizing the risks of supply shortages or interruptions" (Khushnood et al., 2018). Many scholars have used multi-dimensional constructs in order to assess the levels of resilience. Wieland and Wallenburg (2013), has viewed resilience as having two components: robustness and agility. The research by Liu et al. (2017) illustrated resilience through the implementation of four key elements: a cultural approach to risk management, integration, flexibility and the redesign of supply chains. Other researchers, such as those cited in Ambulkar et al. (2015); Dubey et al. (2019), viewed resilience as a unidimensional construct. The current research considers supply chain

resilience as a single dimension that includes aspects such as firm response time to interruption and firm connection and control maintenance during the recovery phase of resilience.

2.4. Supply Chain Performance

Cai et al. (2008) defined supply chain performance as the collective ability to meet target consumer needs through product offerings, responsiveness, and punctual delivery. A supply chain's effectiveness transcends organizational and functional divisions, covering both short-term and long-term goals, such as increasing market presence and integration, improving efficiency, and minimizing inventory and delivery times (Asamoah et al., 2021; Li et al., 2006; Lyons et al., 2004). Consequently, it is important to consider financial and non-financial factors while assessing supply chain performance (Seo et al., 2014). In accordance with Hill (2000) This study will demonstrate supply chain metrics in the more conventional areas of cost, time, quality, visibility, and flexibility. These attributes were chosen because they pertain to crucial aspects of supply chain management (Hill, 2000).

2.5. Theoretical Background

Resource Based View (RBV)

The RBV theory places great emphasis on the role of a company's distinctive resources and capabilities in defining the competitive advantage (Oh et al., 2012; Yuen et al., 2019). Moreover, the RBV theory is often considered to be an appropriate paradigm for identifying the relationship between Supply chain integration and Supply chain performance. It shows that in the challenging and dynamic environment, having strange un-avoidable excess resources may not guarantee one's competitiveness (Huo et al., 2016). Therefore, the Resource-Based View (RBV) approach is not suitable in high uncertainty situations. (Furr & Eisenhardt, 2021; It disregards the ambidextrous and resilience capabilities of a firm to adapt to the unexpected environments via resource integration (Yu et al., 2013; Kotabe & Mol, 2009; Patabadige & Galahitiyawe, 2022).



Organizational Ambidexterity Theory (OAT)

The concept of “organizational ambidexterity” has become recently developed as a viable theoretical model for discussing the causal issues of supply chain-related phenomena, such as innovation, organizational learning, and improved performance (Hwang et al., 2021; Tushman and O'Reilly, 1996). Business firms can live volatile and uncertain environments by building their competence through ambidexterity as it is based on the dynamic capability-building process (Ojha et al., 2018; Trieu et al., 2023; Veiga et al., 2024). Under constant changes in competition and market conditions, ambidexterity theory argues that it is no longer sufficient to be good at one thing (resilience or efficiency). It would be a better approach to pursue a wide range of competing goals simultaneously rather than the single-minded focus we have currently; goals such as resiliency and efficiency (Kristal et al., 2010; Kriz, 2014; Schwarz et al., 2019)

2.6. Hypothesis Development

Organizational Ambidexterity and Supply Chain Performance

Supply chain performance is improved when enterprises can effectively balance exploration and exploitation. This is underscored in a number of earlier scholarly research works. These include; (Cao et al., 2009; Lubatkin et al., 2006; Voss & Voss, 2013; Wang & Li, 2008 ; Lee & Rha, 2016). According to Herzallah et al. (2017), business organisations rely on the creativity and innovation when they find new opportunities for creating value and deploying new ways of satisfying customer needs and managing market changes pro-actively. The Organizational Ambidexterity Theory (OAT) suggests that there is a strong connection between a company's ability to balance exploration and exploitation and how well its supply chain performs. It supports the previous findings between these two crucial organizational factors identified in this theoretical framework (Aslam et al., 2024; Li, 2023). Thus it is proposed that,

H1: Organizational ambidexterity impacts on supply chain performance

Organizational ambidexterity and supply chain integration

The impact of supply chain integration on organizational ambidexterity was examined by Nazir and Pinsonneault (2011) and Venugopal et al. (2020). It focuses on how this relationship impacts on organization's ability to transform, create break-the-mould ideas and come up with novel paths to address consumer needs (Rojo et al., 2016; Shukor et al., 2020). As per the Rai and Tang (2010), integration skills of the workforce and the ambidexterity of operations foster a preparedness of an organization to respond to change circumstances. This study findings complement the work of Swafford et al. (2006), which identified organizational ambidexterity as a crucial and critical factor for achieving supply chain integration (Partanen et al., 2020; Birasnav & Bienstock, 2019). Therefore, OAT support to the link between Organizational Ambidexterity and supply chain integration. According to the OAT, the synergistic effect of integration capabilities generates a readiness for process changes, which is facilitated by organizational ambidexterity. Thus, it is proposed that:

H2: Organizational ambidexterity impacts on supply chain integration

Supply Chain Integration and Supply Chain Performance

Previous literature revealed that the supply chain performance can be improved by integrations of supply chains (Ayaz, 2022; Elmuti et al., 2008; Green et al., 2008; Ralston et al., 2015). As Migdadi et al. (2018) pointed out, supplier integration can cut down on stock and production costs while simultaneously boosting product quality and minimizing turnaround times. Therefore, supplier integration is critical to obtaining and maximizing SC performance. Interfacing with customers is another way in which businesses can ensure their satisfaction (Kim & Chai, 2017). In the same way, internal integration facilitates smooth running of businesses by promoting working together within the different departments and sharing production data. Previous research finds that internal integration is beneficial to the performance of supply chain (Alfalla-Luque et al., 2015). Therefore, it put forward that:

H3: Supply Chain Integration impacts on Supply Chain Performance



Mediating effect of supply chain integration on the relationship between Organizational ambidexterity and supply chain performance

Performance improvements in the supply chain come about owing to supply chain integration which is influenced by organizational ambidexterity (Shukor et al., 2020). The research shows that supply chain integration leads to firms that are able to take competitive advantages and be in a better position to cope with the market situations making them exploit already existing resources and venture into new opportunities (Lee & Rha, 2016; Shamim et al., 2017). The amalgamation of supply chains, makes organization to capture benefits from the organizational ambidexterity and also enhance performance. This will be achieved by finding new approaches to deal with the changing contingencies of the market as well as finding new ideas on the consumer need (Lee & Rha, 2016; Shamim et al., 2017; Swafford et al., 2006). Moreover, results indicate that ambidexterity plays a crucial role in supply chain integration analysis, as it is reflected by the OAT. It is concerned with supplier, customer and internal integration that transcend organizational boundaries in the dynamic business environment. Given this perspective, the following hypothesis is suggested:

H4: Supply Chain Integration mediates the impact of Organizational ambidexterity on Supply Chain Performance

Organizational ambidexterity and Supply Chain Resilience

Organizational ambidexterity (OA) increases the resilience of supply chain (Aslam et al., 2020; Lee & Rha, 2016), which help business survive in the volatile markets by balancing the competing goals and objectives (Gibson & Birkinshaw, 2004; He & Wong, 2004; Koryak et al., 2018). Iborra et al. (2020) depicts that Organizational Ambidexterity increases supply chain resilience and recovery from disturbances, increasing the organization's readiness to cope with disruptions in the surrounding (Bechthold et al. 2021). In addition, OAT aims to enhance supply chain responsiveness, performance of organization and firm competitiveness given the changing environment and the idea of exploitation and exploration which help in resilience. Thus, the following is proposed:



H5: Organizational ambidexterity impacts on Supply Chain Resilience

Supply Chain Resilience and Supply Chain Performance

Supply chain resilience still stands as a critical aspect of survival and flourishing amid the ever volatile business environment. (Beck & Lengnick-Hall, 2011; Queiroz et al., 2023; Sturm et al., 2021). Furthermore, the supply chain resilience could resituate the organization to the pre-disruption stage or its best level. According to the Jüttner & Maklan (2011), resilience is an important facilitator of performance in supply chain that is able to foresee adverse events and prevent performance from deteriorating (Um & Han, 2020; Zhou, et al., 2022). OAT identifies the resilience as ability of a business to dynamically develop, integrate and adapt internal and external competencies to sustain supply chain performance. This support provides firms to maintain effectiveness in such environments by continuously repositioning their competencies. This insight focuses on the impact of supply chain resilience to the total supply chain performance.

H6: Supply Chain Resilience impacts on Supply Chain Performance

Mediating effect of Supply Chain Resilience on the relationship between Organizational ambidexterity on Supply Chain Performance

A study by Krishnan and Pertheban (2017) investigated how measures of supply chain resilience influence organizational ambidexterity, considering it as a dynamic capability. The study specifically leads to examine: how organizational ambidexterity facilitates recovery from disruption in operation in dynamic environments contributes to overall organizational performance. Improved competences and the ability to deal with a dynamic business environment result from an ambidextrous approach based on a dynamic capability-building process (Christopher & Peck, 2004). According to OAT, "Organizational ambidexterity is seen as an effective technique to create supply chain resilience," particularly in a dynamic and uncertain context. Ambidexterity is thought to enhance resilience, helping organizations in mitigating supply chain disruptions, optimizing operations, and addressing competitive



challenges, while also facilitating adaptation to rapidly changing environments performance (Aslam et al., 2020; Xu & Liu, 2023). Therefore, the following proposition is suggested:

H7: Supply Chain Resilience mediates the impact of Organizational ambidexterity on Supply Chain Performance

Supply Chain Integration impacts on Supply Chain Resilience

Many companies prioritize managing supply chain disruptions as their operations grow more complex (Schoenherr & Swink, 2019). Effective supply chain operations require businesses to coordinate closely with suppliers and logistics partners (Smith, 2020). In times of high uncertainty, businesses are less able to adapt without formalized mechanisms for cooperation among competing companies, employees and customers (Ji et al., 2020; Yuan et al., 2023). The OAT emphasizes the need to integrate organizational processes in order to synchronize and restructure their resource base with the rapidly evolving industry dynamics and to deal with unforeseen events. Exhibiting resilience and adaptability proves challenging without fostering integration among vendors, retailers, and distributors throughout the supply network. (Hotlan, 2021). Consequently, it suggests that

H8: Supply Chain Integration impacts on Supply Chain Resilience

Mediating effect of Supply Chain Resilience on the relationship between Supply Chain Integration and Supply Chain Performance

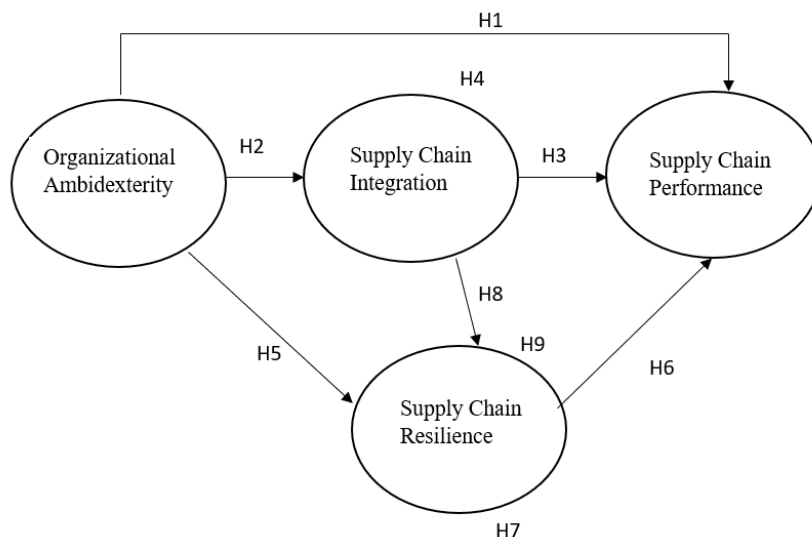
Supply chain integration is a possible approach for the company to generate synergistic impacts throughout the supply chain. Nonetheless, given the modern business climate, it is not certain that a company will achieve a sustainable supply chain performance if it relies entirely on integrations across the supply chain network. As a result, supply chain resilience is vital to the continued existence of the company (Ambulkar et al., 2015; Hohenstein et al., 2015). The use of the OAT is focused on the expectation that businesses must be responsive by reorganizing their supply chain procedures and moving toward tighter integrations with suppliers, employees, and customers, which results in enhanced performance in terms of dynamism. Companies in today's fast-paced business climate may

not consistently achieve a sustainable supply chain performance if they rely simply on integrations across the supply chain network. Consequently, the supply chain's resilience is critical to the company's growth and continued existence (Ambulkar,2015; Hohenstein et al.,2015). For this reason, it is possible to suggest

H9: Supply Chain Resilience mediates the impact of Supply Chain Integration on Supply Chain Performance

2.7. Conceptual Framework

Figure 1: Conceptual Framework



3. METHODOLOGY

3.1. Participants and Procedures

This research study utilize positivist perspective, as outlined by Saunders et al. (2009). This study employs a deductive approach, formulating hypotheses and a conceptual framework grounded in established theories and prior research (Saunders et al., 2009). Further, This is a cross-sectional analysis of supply chain performance during a certain specific period (Bryman, 2012). This study functions as an explanatory investigation, shedding light on the interrelationships among predefined variables through empirical data collected in Sri Lanka.

The research approach incorporates a survey method, utilizing a standardized questionnaire to obtain data (Saunders et al., 2009). Each construct was assessed on a seven-point Likert scale from "1" (strongly disagree) to "7" (strongly agree).

The target population includes all manufacturing companies listed with Sri Lanka's Board of Investments (BOI), totaling 1,700 registered companies. The study sample comprises 200 Supply Chain Managers employed in BOI-registered manufacturing plants. These experts specialize in production, operation, corporate sustainability and corporate strategy domains within their respective facilities. The unit of analysis is the manufacturing company in Sri Lanka, where supply chain practices are important for success (Hüseyinoğlu et al., 2020). Participants are selected using systematic random sampling, targeting supply chain managers and professionals who have submitted information to the BOI, with a selection rate of one every eighth (8th) person. Out of 200 questionnaires e- mailed, 137 responses were received, yielding a 68.5% response rate.

4. DATA ANALYSIS AND RESULTS

This research study analyzed with two statistical software packages for data analysis such as SPSS (version 21) and SmartPLS 3.0. The SPSS analysis employed to conduct data cleansing, screening, descriptive analysis, outlier elimination in preparation for structural equation modeling (Galahitiyawwe & Jayakody, 2019). Due to limitations in reaching manufacturing firms and time limitations, only one hundred and thirty-seven (137) usable responses were collected. Consequently, the structural equation modeling (SEM) computations were performed using partial least squares (PLS) technique, implemented through SmartPLS 3.0.

4.1. Measurement model

The study's framework is incorporated with both lower-order and higher-order components, which were reflective in nature, as illustrated in Figure 1. Supply chain integration serves as the higher-order construct, encompassing Customer Integration, Supplier Integration, and Internal Integration as its lower-order components. Additionally, Supply Chain Resilience, Organizational Ambidexterity, and Supply Chain Performance are also lower-order

constructs in this study. According to Hair et al. (2011), the assessment includes examining internal consistency reliability, indicator reliability, convergent validity, and discriminant validity. The HTMT score exceeding 0.90 signifies a lack of discriminant validity, even though indicator and composite reliability were successfully achieved. Consequently, SI2, with a lower outer loading value of 0.821, was removed before further model analysis due to these discriminant validity violations.

Reflective measurement model evaluation begins with an analysis of indicator loadings (Hair et al., 2019). This illustrates that all outer loadings are within the acceptable range of 0.748 to 0.922, making the indicator reliable above and beyond the threshold level. Internal consistency reliability of the variables was ensured via composite reliability (over 0.7) (Hair et al., 2017). With the elimination of the SI2 lower-order component, composite reliability values range from 0.91 to 0.97, thus increasing composite reliability. The convergent validity was ensured by calculating the average variance extracted (AVE) value, which exceeds 0.5 (0.66) (Hair et al., 2019). As per the Henseler et al. (2015), Discriminant validity was ensured by heterotrait-monotrait (HTMT) ratio, which is lower than 0.9 value and the Fornell-Larcker criterion, where the AVE for all constructs exceeds the correlations among constructs.

Table 1: Reliability of Validated measurement model

Variable	Composite reliability	Average variance extracted (AVE)
CI	0.910	0.720
II	0.939	0.804
OA	0.948	0.760
SCI	0.964	0.656
SCP	0.954	0.804
SCR	0.970	0.839
SI	0.926	0.820

Table 2: Fornell and Larcker criterion of Validated measurement model

	CI	II	OA	SCP	SCR	SI
CI	0.849					
II	0.748	0.897				
OA	0.808	0.823	0.872			
SCP	0.734	0.664	0.791	0.897		
SCR	0.671	0.709	0.86	0.762	0.916	
SI	0.838	0.754	0.863	0.765	0.736	0.905



Table 3: HTMT of Validated measurement model

	CI	II	OA	SCP	SCR	SI
CI						
II	0.801					
OA	0.867	0.871				
SCP	0.783	0.700	0.831			
SCR	0.711	0.744	0.896	0.790		
SI	0.900	0.805	0.821	0.813	0.777	

4.2. Structural model

The study's endogenous constructs: supply chain resilience, supply chain integration, and supply chain performance show adequate explanatory power with R2 values of 0.81, 0.738 and 0.68, respectively (Hair et al., 2017, 2019). Predictive relevance is qualified when the Q2 value is higher than 0.0 (Hair et al., 2019), ensuring prediction accuracy in the reflective model under PLS-SEM (Hair et al., 2014). The path model's relevance is ensured with Q2 values above 0.5 for all the constructs, (Hair et al., 2021).

The hypotheses of the study were analyzed using path coefficient values and significance levels. Hypothesis 1 (H1), proposing that Organizational ambidexterity affects Supply chain performance. It was supported with a p-value of zero at a 95% confidence interval. Hypothesis 2 (H2), suggesting that Organizational ambidexterity impact on Supply chain integration, was supported with a p-value of zero at a 95% confidence interval. Hypotheses 3 (H3) and 5 (H5), which suggests that Supply chain integration impacts Supply chain performance and that Organizational ambidexterity impact on Supply chain resilience, respectively, were also supported. Since the p values are less than zero, both the hypotheses are supported at 95% of confidence interval. Considering the path coefficient values of the two hypotheses (H3 and H5), it can be also highlighted that there are strong positive relationships are available within the representing variables in the hypotheses. Moreover, the impact of Supply chain resilience on supply chain performance and supply chain integration impacts on supply chain resilience are proposed in the H6 and H8 respectively. Since the p values are less than zero, both the hypotheses are supported at 95% of confidence interval. And there can be identified strong positive relationships are available within the representing variables in the hypotheses. Hypotheses H4 and H7 propose that supply chain integration and resilience mediate the association between organizational ambidexterity and supply chain performance. As



recommended by Hair et al. (2019), researchers initially evaluated the direct impact of organizational ambidexterity on supply chain performance, excluding the mediator variable. Upon establishing the significance of this direct effect, they incorporated the mediator variable to analyze its indirect effect. The significant calculated indirect effects indicate that supply chain integration and resilience mediate the relationship between organizational ambidexterity and supply chain performance.

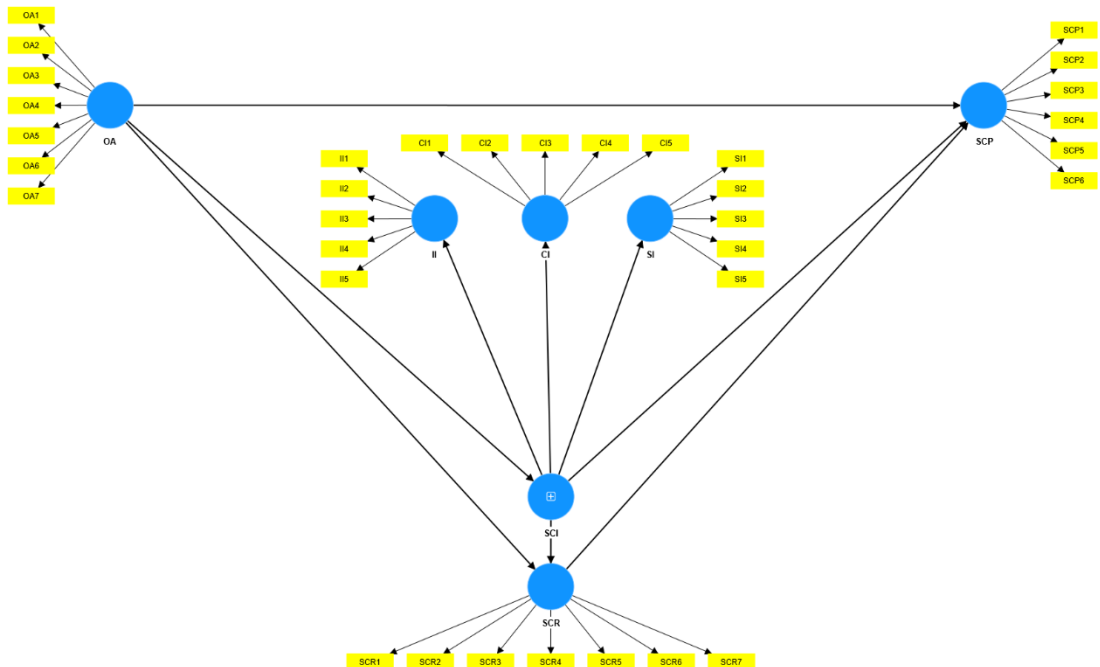
The variance accounted for (VAF) was computed to identify the mediation type, with values of 46% and 45% indicating partial mediation between organizational ambidexterity and supply chain performance, as VAF values between 20% and 80% suggest partial mediation (Hair et al., 2014). The study also showed that supply chain resilience partially mediates the relationship between organizational ambidexterity and supply chain performance, thus supporting hypotheses H4 and H7. Hypothesis H9 posits that supply chain resilience mediates the link between supply chain integration and performance. Given the significant direct effect, the indirect effect was tested by including the mediator variable. The path coefficient for H9 is 0.303, indicating a significant relationship at the 5% level with a p-value of zero. The VAF is 42%, suggesting partial mediation of supply chain resilience on the relationship between supply chain integration and supply chain performance.



Table 4: Analysis of hypotheses- Summary

	Original (O)	sample Standard (STDEV)	deviation	T statistics	P values	Decision
OA -> SCP	0.795	0.054		14.656	0.000	Support ed
OA -> SCI	0.900	0.024		37.069	0.000	Support ed
SCI -> SCP	0.783	0.062		12.683	0.000	Support ed
OA -> SCI - >SCP	0.322	0.101		3.199	0.001	Support ed
OA -> SCR	0.860	0.028		30.566	0.000	Support ed
SCR -> SCP	0.764	0.060		12.792	0.000	Support ed
OA -> SCR - >SCP	0.265	0.111		2.397	0.017	Support ed
SCI -> SCR	0.765	0.052		14.701	0.000	Support ed
SCI -> SCR -> SCP	0.303	0.079		3.862	0.000	Support ed

Figure 2: Analysis of hypotheses





5. DISCUSSION

Supply chain integrations do not necessarily assure the achievement of supply chain performance (Piprani et al., 2020). Nonetheless, supply chain integration not always ensure a consistent degree of supply chain performance (Huang et al., 2014). Unfortunately, the potential causes of this scenario are rarely examined in the context of supply chain management (Donadoni et al., 2018). The research seeks to bridge this knowledge gap by investigating the impact of supply chain resilience and organizational ambidexterity on supply chain performance. Specifically, the study explores how these factors contribute to improved supply chain outcomes through enhanced integration across the supply network.

This research aims to assess the relationship between organizational ambidexterity and supply chain performance. According to the findings by Im and Rai (2008), strong relationships between supply chain vendors that foster the sharing of exploratory and exploitative information have a favorable effect on performance. Empirical evidence supports the Organizational Ambidexterity theory (OAT), indicating that high-tech firms in Taiwan employing an ambidextrous strategy, by developing multiple functionalities simultaneously, attain optimal organizational success. This study, conducted in Sri Lanka, aligns with findings from other Asian countries. Sri Lankan manufacturers can enhance supply chain performance through organizational ambidexterity, as they embrace innovative approaches, learning, and human resources who implements the transformative change (Blome et al., 2013; Eng et al., 2022; Gibson & Birkenshaw, 2004; Lubatkin et al., 2008; Smith & Tushman, 2005)

The findings of this study indicate that organizational ambidexterity significantly affects supply chain integration (0.900, $p < 0.05$). According to a survey of Malaysian managers from the services and manufacturing sectors, organizational ambidexterity has been associated to both customer and internal supply chain integration. According to a study by the Japanese telecommunications sector, organizational ambidexterity demonstrates that the procedure for implementing ambidexterity is not as difficult or complex as some might imagine, since all that is required is an effective management with leadership skills who encourages greater collaboration among the company employees (Hijjawi et al., 2019). The findings from this Sri Lankan investigation lend support to prior contentions and research outcomes concerning



organizational ambidexterity's effect on supply chain integration. This research additionally revealed that supply chain integration acts as a partial mediating factor in the link between organizational ambidexterity and supply chain performance. The existing body of literature has infrequently examined this mediating relationship. A survey of Malaysian business leaders identified that enterprises can leverage ambidexterity to improve supply chain performance by actively pursuing innovative methods to meet customer demands and adapting to the changing and challenging business environment through integrated supply chains (Lee & Rha, 2016). Previous empirical researches and this study's findings suggest that supply chain integration, driven by organizational ambidexterity, enhances supply chain performance in Sri Lanka. Manufacturing companies in Sri Lanka often exhibit this trait by continually seeking innovative ways to connect with suppliers, clients, and employees, aiming to better meet customer demands and adapt to the ever-changing business environment.

The current study found that an organization's ambidexterity affected on supply chain resilience. Thus according Dejonckheere et al. (2003), organizational ambidexterity act as a dynamic capability which positively linked to a resilient supply chain, since it mitigates the detrimental effects of supply chain instability. According to the study on the fashion industry, organizations aiming for success in today's competitive environment must continuously seek to enhance their agility and responsiveness to customer needs. (Kauppila, 2007; Perry et al., 2015), which is consistent with the Organizational Ambidexterity theory (OAT). In anticipation of the post-pandemic landscape, Sri Lankan manufacturers are likely engaging in and refining dual-purpose strategies. These ambidextrous approaches aim to simultaneously implement and develop supply chain resilience measures that are both proactive and reactive in nature (Aslam et al., 2020) Based on the current study's outcomes and previous research, it is reasonable to infer that organizational ambidexterity positively influences supply chain resilience within the Sri Lankan context.

The current analysis also indicates that supply chain resilience has an impact on supply chain performance. The results of this research back up the findings of Rodrigues et al. (2016), who discovered that organizations can increase their attractiveness and performance by strengthening their internal systems and fostering a culture of resilience. Abeysekara and



Kuruppuarachchi (2019) highlighted that supply chain resilience has enhanced the performance of Sri Lankan manufacturing firms by increasing flexible capabilities and slack capacity to manage internal and external risks, such as raw material price spikes, political unrest, and legislation, thereby fostering a stronger risk management culture. These reasons and findings pertain to the influence of supply chain resilience on performance, as confirmed by this study in Sri Lanka.

This study finds that supply chain resilience partially mediates the relationship between organizational ambidexterity and supply chain performance. Research on 164 Malaysian manufacturing SMEs indicates that supply chain resilience in dynamic business environments enhances organizational ambidexterity, resulting in improved performance. The current study corroborates previous research (Pertheban et al., 2023), indicating that organizational ambidexterity drives supply chain resilience in Sri Lanka, subsequently enhancing supply chain performance. One rationale might be that prepared decision or backup plans and communication protocols help Sri Lankan firms to settle issues quickly during the decision-making process, hence increasing the industry's responsiveness to fluctuating market demands.

This research also aims to explore the link between integrated supply chains and improved performance. This study demonstrates that supply chain integration significantly enhances supply chain performance. Ibrahim and Ogunyemi (2012) identified a positive correlation between supply chain integration and performance in the textile and apparel industry. Devaraj et al. (2007) found that in the North American automotive industry, integrated supply chains with strategic partnerships among customers, suppliers, and employees resulted in improved outcomes. Therefore, it can be said that Sri Lankan manufacturing businesses frequently rely on regular information updates and enhancing consumer value. Furthermore, Supply chain integration has assisted Sri Lankan manufacturing firms to enhance their supply chain performance, which has enabled for collaborative efforts across areas such as exchanging information, technologies and planning effort, inventory control, and collective decision-making, which have all resulted to a greater degree of firm control, reduced transaction costs, reduced cycle times, and reduced levels of uncertainty. This research, conducted in Sri Lanka



to represent the South Asian environment, confirms previous findings and scholarly arguments that supply chain integration improves supply chain performance.

The present research reveals that supply chain integration has a critical role in improving supply chain resilience. Piprani et al. (2020) underscored the need for Pakistani manufacturers to connect to their suppliers and customers by reshaping their supply chains to become resilient. Integration allows firms to cooperate and exchange information with partners, responding to changes in the demand on the market. Manufacturers in Sri Lanka are facing the challenge of natural disasters, instability in the economy and politics which will make it difficult for manufacturers to get to meet consumer needs and maintain stock. Therefore, manufacturers need to reshape their supply chains to meet these challenges. The SriLankan manufacturing enterprises should integrate with suppliers and consumers to attain supply chain resilience. Moreover, this study highlighted that the mediation of the relationship between supply chain integration and performance occurred by supply chain resilience, thus filling a theoretical void in the RBV. Organizational Ambidexterity Theory (OAT) presumes that a fast-paced environment demands that organizations integrate and reconfigure their resource base to remain competitive (Ojha et al., 2018). Piprani et al., (2020) revealed that Pakistan manufacturing firms got reliable real-time downstream demand data and info by having close relations with consumers. Sri Lankan manufacturers are under external threats on the need to work closely with supply chain partners. Hence, manufacturing organizations need to have stronger capacity for internal and external integration to enhance their performance and increase resilience. This aspect is consistent with the conclusions of such scholars as Ponomarov (2017) and Ali et al. (2017).

6. IMPLICATIONS OF THE STUDY

This research reveals that the achievement of supply chain performance cannot be assured just by integration of the supply chain. It shows that RBV might not explain the significance of the supply chain integration to performance in sufficient detail, and it thus fills in the gap in RBV theory. (Yu et al., 2013). Prior research demonstrates that there are various endogenous and exogenous factors that affect the level of supply chain integration and its effect on supply chain performance in a significant manner. The results of the study support



Organizational Ambidexterity Theory (OAT) where organizations in the changing environment need to align and reorganize resources to stay competitive (Ojha et al., 2018). This study examines how supply chain integration and resilience, serving as precursors to organizational ambidexterity and showing that they lead to superior performance.

This study provides practical implications for overseeing operations and supply chain managers. It highlights the importance of supply chain resilience for achieving high performance through integration. Collaborations and strategic alliances enhance the smooth transfer of information and sharing of knowledge throughout the supply chain. Organizational ambidexterity helps firms survive and grow by addressing disruptions in supply chain management. Firms that pursue new opportunities along the supply chain are better equipped to respond quickly to disruptions. Enhancing organizational ambidexterity involves encouraging managers to use internal process coordination routines, such as regular meetings between functional groups and cross-functional teams for new product development.

7. FUTURE RESEARCH

Many endogenous or exogenous factors influence supply chain performance. In this case, we disregard the effect that the dimensions of the individual variables have on the endogenous variable. In a future study, the influence of each dimension can also be investigated. Therefore, it would be instructive to undertake a study with all these dimensions to ascertain whether or not more dimensions enhance the model's exploratory potential. The study's findings and conclusions were based on statistical methods, indicating a primary focus on quantitative analysis. The researcher suggests using qualitative study analysis in future research to achieve more comprehensive and consistent results that accurately reflect the study population. The study analyzed multiple manufacturing industries to derive conclusions relevant to Sri Lankan businesses. Future studies could concentrate on a particular industrial sector and compare it with other developing economies to gain precise insights into the impact of supply chain resilience, organizational ambidexterity, and supply chain integration on supply chain performance.



8. CONCLUSION

This study's findings significantly contribute to supply chain management. It enhances our understanding of how Sri Lankan manufacturers can benefit from supply chain integration. This study indicates that internal and external supply chain integration may not always enhance supply chain performance in emerging economies like Sri Lanka. This study's results indicate that manufacturing industries must enhance their resilience in addition to investing in integration practices. The study's findings also revealed that Sri Lankan manufacturing organizations are developed and strengthened when they've successfully gained the ability to explore novel things and exploit current resources, indeed in harsh and difficult environments. The study reveals that supply chain resilience, organizational ambidexterity, and supply chain integration are crucial for enhancing supply chain performance in Sri Lankan manufacturing organizations.

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