

International Journal of Enterprise Network Management

ISSN online: 1748-1260 - ISSN print: 1748-1252

<https://www.inderscience.com/ijenm>

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DOI: [10.1504/IJENM.2023.10055887](https://doi.org/10.1504/IJENM.2023.10055887)

Article History:

Received:	24 March 2021
Last revised:	14 June 2021
Accepted:	29 June 2021
Published online:	06 May 2023

Role of supply chain performance in global value chain creation in COVID-19: a partial least square modelling framework for emerging economy

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Abstract: With the current times of high uncertainty, especially in the new normal era, organisations are putting their best foot forward to retain their existing market share and capture new territories. Supply chain performance is playing a critical role and is becoming a key component in creating additional value to the organisation, especially in the current era of globalisation. This study reflects the role of supply chain performance on global value creation, where leading e-commerce sites are considered based on supply chain performance. The partial least square-structural modelling was used to test the proposed framework. Factors like ‘supply chain flexibility’, ‘risk management capabilities’, and ‘customer relationship management’ emerged to be the most important and crucial ones. Further studies have been conducted involving various sectors by considering the different states of affairs of particular times.

Keywords: supply chain flexibility; risk management capabilities; customer relationship management; social sustainability orientation; global supply chain value creation; supply chain performance.

Reference to this paper should be made as follows: Gupta, S., Sharma, G. and Sawhney, A. (2023) ‘Role of supply chain performance in global value chain creation in COVID-19: a partial least square modelling framework for emerging economy’, *Int. J. Enterprise Network Management*, Vol. 14, Nos. 1/2, pp.139–160.

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1 Introduction

The baseline expectation of modern consumers has risen considerably as a result of advancements in commerce and industry. According to Christopher and Holweg (2017), the rise of same-day and next-day delivery has resulted in new product and service expectations, putting companies under new strain (Babalola et al., 2011). As a result of the demand surge, the entire supply chain is rapidly transitioning into an interconnected and global network of data and processes (Yang et al., 2017; Anand and Pandian, 2019). Büyüközkan and Göçer (2018) have mentioned that companies are modernising their supply chains in a variety of new and emerging ways to satisfy current customer demands. Blockchain, artificial intelligence, and automation are among the leading-edge technologies blended into a digital supply chain. This helps combine data and information from various sources to steer the distribution of products manufactured at different value chain levels (Akter et al., 2020; Wang et al., 2019; Rajasekaran et al., 2018).

Supply chain refers to be an integrated network of equipment and transportation options for the supply, manufacturing, storage, and distribution of goods and products (Garcia and You, 2015). It is termed as data flow among the many supply chain participants (Drljača, 2019). The supply chain participants' network varies significantly in size, complexity, and scale of operation from industry to industry (MacCarthy et al., 2016). According to Deloitte and CII Report 2019, traditionally, supply chain practitioners worldwide handled the four vs. volatility, volume, velocity, and visibility and sought to maximise results around various goals, including overall cost, operation, efficiency and innovation support. These conventional supply chain goals are unlikely to change much; however, disruptive technology will continue to simplify business operations to achieve maximum benefit from integrated supply chains (Lemmens et al., 2016).

Organisations worldwide are moving away from conventional and linear supply chain models and focusing on linked, flexible, customisable, and nimble supply networks due to exponential technology adoption (Zhang and Dhaliwal, 2009). Early adopters and forward-thinking businesses have already moved to diverse and interconnected networks that provide a continuous flow of goods, services, knowledge, and analytics for decision-making. Visibility, real-time information, productivity, and control in the value chain become vital for organisations in this context (Kumar et al., 2017; Brettel et al., 2017; Rejeb et al., 2019). According to London and Hart (2004), institutional barriers and constraints necessitate the organisations to adopt new supply chain models that combine economic, social, environmental, and technological factors in developing economies. However, when it comes to the applicative part of this model, it has a lot of challenges, especially in the Fourth Industrial Revolution (Industry 4.0), which is a term linked with the internet of things (IoT) that has ushered in a new paradigm into the manufacturing and production environment (Tjahjono et al., 2017).

According to the findings of Hofmann and Rüsçh (2017), academicians and practitioners in emerging markets have a limited understanding of the ramifications of Industry 4.0 (Amorim et al., 2016). Organisations also appear to be having difficulty transforming the revolutionary concepts of Industry 4.0 to a level where the benchmark is laid down concerning sustainability of supply chains (Erol, 2016). The supply chain networks have become more complex as companies have grown in size, diversified their product portfolios, and expanded their geographic reach. The changing demographics in emerging economies like India and state-by-state preferences are further causing demand patterns to shift and affect the market (Creutzig et al., 2018).

Amongst various organisations, the e-commerce industry has still not adopted best practices used by their rivals and developed countries (Lamba et al., 2019). Another issue they face is a lack of technological and infrastructure support from their partners (Joseph, 2019). The growing complexity of the value chain, combined with the business environment's globalisation, has made precise forecasts even more complicated.

Therefore, the e-commerce industry in developing economies must follow creative business models and digital supply chain networks (DSNs) to achieve long-term growth and survival. This will enable them to get that competitive advantage (Wang and Pettit, 2016). This innovative move will allow them to survive and prosper in a dynamic marketplace when their capital, distribution, and warehousing cost is already higher than in many developed countries. Moreover, DSNs will enable machines to complement human performance and be a significant driver of the Industrial revolution 4.0 (Ivanov and Dolgui, 2020). An extensive network of cyber-physical systems will drive the execution of linked goods, clients, supply chain, and operations as part of this shift. According to Francisco and Swanson (2018), technological innovation is now being used to discover value buckets that positively affect consumer loyalty and increase operational efficiencies, whether through mobile applications for transport execution, blockchain, sim-based monitoring shipper-transporter-receiver communication platforms (Singh et al., 2019; Patterson et al., 2003). However, due to a lack of strategic perspectives around logistics as a differentiator in supply chain flexibility and agility, supply chain leaders are now pursuing any possibility that has remained concealed (Ribeiro and Barbosa-Povoa, 2018).

The changing next-generation planning model is intended to be a fully collaborative effort involving real-time data collecting and analysis, better decision-making, and a shift

away from inflexible IT systems to highly versatile and customisable cloud-based platforms (Shee et al., 2018; Yuen, 2010). This can provide customisability, a platform for cooperation, fast simulation and scenario planning, and constant monitoring of key performance indicators (KPIs) through role-based dashboards for the organisation (Helo and Shamsuzzoha, 2020).

Companies are now looking at using blockchain to provide real-time visibility of the supply chain and ensure confidence and authenticity (Saberli et al., 2019). It will help create a real-time digital ledger of transactions, perform payment and audits, monitor inventory and assets, purchase orders, and shipping notifications, which will eventually improve supply chain productivity (Min, 2019; Blossey et al., 2019). It is simple for stakeholders (including end consumers) to validate the product's certifications or properties at any moment by connecting physical products to bar codes, serial numbers, sensors, and digital tags like RFID and recording the transactions in a blockchain (Zelbst et al., 2020).

2 Review and conceptual development

SCM refers to a phenomenon to assimilate and synchronise various activities of suppliers and end-users to facilitate timely deliveries and thereby attain an extra edge among different other competitive strategies deployed by organisations in the marketplace (Chen, 2009). This process builds a cohesive relationship between supplier and buyers, which helps reduce risks and regulate the supply chain actions (Lee and Fernando, 2015). This outcome arises by prompting trust-based collaborative relationships through effective communication, collaboration and disseminating relevant information (Kabadurmus, 2020).

Diversified factors affecting the supply chain management in developed economies entailing trust, assurance, collaboration, communication, political, social environment, assistance by top management, etc., have been identified by various researchers (Barringer and Harrison, 2000; Mentzer et al., 2001; Su et al., 2008; Blome et al., 2014; Aloini et al., 2015; Flynn et al., 2017; Raut et al., 2017; Vargas et al., 2018). However, drivers related to supply chain performance in developing economies have gained less attention from scholars and managers. Therefore, introspecting various factors of supply chain performance plays a vital role for effective implementation of SCM practices.

The comprehensive literature review has reflected potential variables of supply chain performance which facilitates global supply chain value creation in developing economies like India.

2.1 Supply chain performance

In the post-COVID times, businesses face immense pressure to upsurge their offerings to deliver more customer-centric products and tap into opportunities to capture markets over other players (Um et al., 2017). This drift raised concern for academicians and practitioners to stress studying supply chain performance (Mofokeng and Chinomona, 2019). Performance management is denoted by enumerating an event's competencies and efficacy (Arlbjørn and Luthje, 2012; Gunasekaran and Kobu, 2007). Therefore, supply chain performance is indicated as an enactment of selective functions entailing a supply chain (Srinivasan et al., 2011). About this study, supply chain performance is reflected as

a supply chain's capability to lucratively carry out various functions involved in the supply chain with minimum costs and optimising customer satisfaction and needs (Green and Inman, 2005).

In today's dynamic business environment, supply chains have become multifaceted, and supply chain partnerships have thus been perceived as essential for generating value (Goffin et al., 2006; Nyaga et al., 2010; Ramanathan and Gunasekaran, 2014). Moreover, supply partners should essentially be proactive and need to collaborate in responding to the customers' varied changing needs (Yang and Burns, 2003) and should strive for attaining sustainability in the supply chain performance (Schaltegger and Burritt, 2014). This will further create value on a massive scale for the businesses (Yeung and Coe, 2015). Past researchers have revealed supply chain partnership to be more theoretical (Ellram and Hendrick, 1995; Mentzer et al., 2000). Moreover, various recent experiential studies have also been conducted in the same domain (Nyaga et al., 2010; Sodhi and Son, 2009). Therefore, supply chain partnership caters to cementing long-term relationships among supply partners by focusing on elements like disseminating information, organisational cohesiveness, top management intervention and trust (Youn et al., 2013).

Over the past three decades, researchers have verified that businesses can further strengthen supply chain partnerships through well-established collaborations (Ramanathan and Gunasekaran, 2014). However, supply chain collaborations vary in these disruptive and ambiguous business settings (Langroodi and Amiri, 2016; Qu and Yang, 2015), unstructured interactions (Arkhipov and Ivanov, 2011; Cheng et al., 2014), biased data distribution (Ganesh et al., 2014) and dispersed management techniques (Lu et al., 2012) are few other factors in the reference. Thus, supply chain collaboration can be defined as a process when two or more businesses unite and liaison together to enjoy a competitive edge and generate revenue by optimising customer satisfaction (Simatupang and Sridharan, 2005).

Moreover, today, supply chains are arbitrated regarding the creation of global value, therefore with the view of literature, supply chain integration is adjudged one of the fundamental elements which may affect performance outcome in diversified ways (Huo et al., 2014; Flynn et al., 2010; Zhao et al., 2013). With due emphasis on enriching supply chain partners' competitive position, scholars have advocated that supply chain integration exaggerates the competition between businesses (Li and Chen, 2017). Therefore, supply chain integration can be referred to as "the magnitude to which business's in-house roles and supply chain stakeholders deliberately cooperate to facilitate internal & external quality business initiatives, affiliations, procedures & so on to accomplish & sustain quality performance at a reduced cost" (Huo et al., 2014).

Contrary to the benefits of intensification of supply chain performance, scholars have argued that the production and delivery function is triggered because of increased labour and material cost, overhead costs and elongated delivery lead times as well increased inventory levels (Salvador et al., 2002; Forza and Salvador, 2001):

H1 There is a positive and significant influence of supply performance on global supply chain value creation.

2.2 Supply management capability

In the new normal, there has been an immense burden on businesses to swiftly and proficiently react to the changing environment and therefore must imbibe multifaceted

competences to assimilate, develop, and realign its abilities to remain competitive withstand its presence (Teece, 2007). Thus, each member of the supply chain's flexibility becomes crucial, including supplier's flexibility rather than just flexibility of manufacturer's (Jin et al., 2014). The effect of ambiguities and uncertainties on supply chain capabilities is further reduced through robust suppliers (Parkouhi et al., 2019).

Suppliers' flexibility confines to product superiority, market fluctuations, price efficacy, and lower risks facilitates supply chain flexibility to proficiently react to dynamic customer needs and market uncertainties (Huo et al., 2018; Rajesh and Ravi, 2015). Further, businesses can depend on maintaining excellent relationships with partners, which will enable in migrating unanticipated fluctuations and changes, classifying and yield better solutions to organisational glitches, and decreasing overall cost, thereby impacting economic performances (Srinivasan et al., 2011). Thus, supply management capabilities can be referred to as an amalgamation of functional flexibility, risk management capabilities, relationships with suppliers and customers, and social sustainability of processes and products (Selvaraj and Wesley, 2020).

On the contrary, there are less evidences in the previous research repository regarding supply management capabilities and their influence on supply chain performance (Fan and Stevenson, 2018). Thus, the amended scale was taken (Zhao et al., 2001; Mentzer et al., 2004).

2.3 Supply chain flexibility

Literature is abundant in the research repository regarding supply chain flexibility. However, various perspectives relate to manufacturing flexibility, organisational flexibility, and according to academicians (Latunreng and Nasirin, 2019). Manufacturing flexibility refers to variety, homogeneity and agility; however, the ability to manufacture one product to a wide of other products during a stated timeframes catered to as organisational flexibility (Latunreng and Nasirin, 2019). Academicians further refer to flexibility as strategic flexibility, which is the capability and magnitude of an organisation to cope with political and economic risks and market fluctuations. Therefore, manufacturing flexibility is a subset of strategic flexibility.

In context to supply chains of businesses across developing economies, supply chain flexibility denotes the businesses' internal supply chains, which implies businesses' ability to mitigate lead times, introduce new product lines, and ascertain the volume of the product (Chiang et al., 2012). Thus, manufacturing complexities are well controlled, and businesses' competencies are endured automatically (Novak and Eppinger, 2001).

Various practitioners have reflected similar viewpoints highlighting the viability of supply chain flexibility in their processes in context to changing wants of the marketplace and uncertainties of the external environment (Sreedevi and Saranga, 2017). Another study echoed the influence of supply chain flexibility on businesses financial and functional performance (Huo et al., 2018). About another study, there has been evidence that there exists an association between supply chain flexibility and businesses overall activities with a moderating effect of unforeseen environmental issues where business performance was measured on two parameters, namely sales growth and sales (Merschmann and Thonemann, 2011). Therefore, it can be propounded from the existing literature that supply chain flexibility has a positive and major impact on businesses' supply chain performance, specifically in developing economies like India. Therefore, we intend to test the following:

- H2 There is a positive and significant influence of supply management capability on supply chain performance.

2.4 Risk management capability

With the integration of economies, the business environments are becoming highly volatile and disruptive; thus, the supply chains are augmented to bear high global risk (Saenz et al., 2018; Miao and Huang, 2012). As cited by researchers, a supply chain disturbance is an unforeseen incident that may trigger the estimated flow of materials, knowledge and modules (Skipper and Hanna, 2009). Thus, to enhance supply chain capabilities, businesses, specifically in developing economies, need to adopt and deploy diversified strategies to mitigate risks (Simchi-Levi et al., 2018). Further, supply chain risk is catered to probability and influence of unanticipated events of economy held at macro/micro levels that unfavourably creates a negative stimulus in any fragment or section in supply chain; thus, leading to disasters and abnormalities at various levels of business organisation (Safeer et al., 2016; Ho et al., 2015).

Risk management capability has been meticulously premeditated by scholars, and the studies have endeavoured to scrutinised various elements and outcomes of irrepressible supply chains (Christopher and Peck, 2004; Ponomarov, 2012; Rexhausen et al., 2012). Therefore, we propose the following hypothesis:

- H3 There is a positive and significant influence of risk management capability on supply chain performance.

2.5 Customer relationships

In the present customer-centric business scenarios, where businesses are stressing nurturing long-term relationships and managing customer conflicts and grievances, researchers have identified that business organisations deploy customer-oriented strategies intending to magnify customer satisfaction rate (Latunreng and Nasirin, 2019). Moreover, the organisation enforcing such strategies gains a competitive advantage as they focus on maintaining cordial relationships with their customers (Mwale, 2014). These relationships also facilitate in fostering sustainable benefit for the organisations at various times of their business cycles. With the paradigm shift in the marketplace, where organisations aspire to meet customer expectations by embracing different strategies like product customisations and personalised services, cultivating relationships with customers becomes a prime focus.

About supply chains in developing economies, it has become crucial for businesses to develop transparent and long-term relationships with their target audiences for effective implementation of supply chain programs and deliver value to the customers (Saber et al., 2014). Thus, studies in the past have critically evaluated customer relationships as an essential ingredient of supply chain capabilities (Tuan and Yoshi, 2010; Ray et al., 2004):

- H4 There is a positive and significant influence of customer relationships on supply chain performance.

2.6 *Social sustainability orientation*

From the past studies, literature has reflected that for deploying viable practices, businesses need to sense their multifaceted competencies by ascertaining business sustainability requirements in sync with their stakeholders (Parera et al., 2014). After introspecting the requirements, businesses need to devise sustainable products and services and stress on realigning capabilities in context to organisational formation, management perspectives and strategies, and adoption of amicable processes (Nath and Agrawal, 2020). Therefore, businesses must have viable capabilities entailing social sustainability orientation, which enhances their knowledge spectrum, rope in innovative techniques, and implements dynamic routines to survive in the dynamic business environment (Parera et al., 2014).

Social sustainability orientation can be refereed as an approach catering to structures, processes, innovations, and techniques to drive social sustainability into their business's supply chain (Croom et al., 2018; Mo, 2012). Researchers have further contended that Social Sustainability Orientation enables the creation of new actions and activities, which facilitates businesses' social sustainability performance and impacts conditions (Pagell and Wu, 2009). Various values that indicate sustainability disputes play a critical role in emerging social suitability orientation and thereby are imitated in the practices and strategies adopted by the businesses (Pagell and Wu, 2009; Marshall et al., 2015). Today, companies adopt various social sustainable systems based on specific requirements and obligations and stress on customising their products and services (Balakrishnan and Suresh, 2019; Sharma and Henriques, 2005).

In context to past studies conducted by various authors, it has been proven that an association occurs between social sustainability orientation and businesses performance processes (Filbeck and Gorman, 2004; Al-Tuwaijri et al., 2004; Gonzalez-Benito and Gonzalez-Benito, 2005; Ann et al., 2006; Chang and Kuo, 2008; Arendt and Brettel, 2010; Goyal et al., 2013). There is ambiguity in whether operational performance is directly impacted by social sustainability orientation or the leading firms who are performing well have embraced this orientation (Panigrahi et al., 2018). Therefore, it can be hypothesised the following:

H5 There is a positive and significant influence of social sustainability orientation on supply chain performance.

2.7 *Global supply chain value creation*

Various scholars have identified and established a positive association between synchronised efforts to create value within businesses supply chains and their overall performance. There has been evidence in literature that entailed the positive association between suppliers and customer amalgamation and the supply chain performances of the businesses (Frohlich and Westbrook, 2001). Also, studies reflected significant and affirmative relationships between customers and supplier's integration on business performance (Morash and Clinton, 1998).

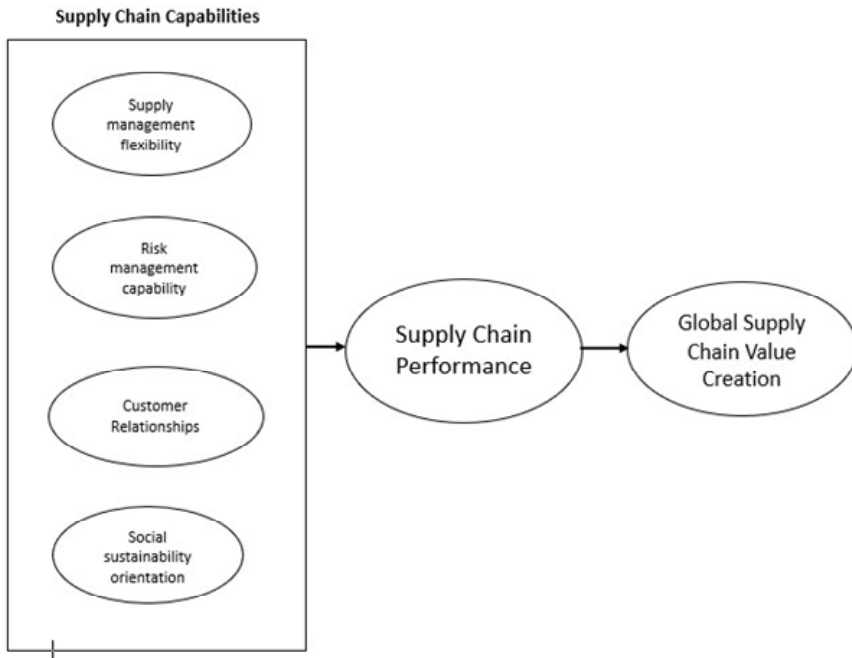
The past studies have carried out a synchronised investigation of the influence of customers, suppliers, and internal resources in context to value creation (Jayaram et al., 2004). As reflected before, there is an absence of facts and theories to draw inferences about various factors configuring global value creation. About partial literature available

to address the issue laterally (Frohlich and Westbrook, 2001; Fawcett and Magnan, 2001; El Sawy, 2001), this study has suggested a predominant factor called global supply chain value creation. Thus, through researchers' investigation, we contend that business supply chain performance leads to global supply chain value creation (Morash and Clinton, 1998; Frohlich and Westbrook, 2001; Fawcett and Magnan, 2001; Sawhney et al., 2007).

The following hypothesis can conclude the above argument.

Table 1 Operational definitions

<i>S. no.</i>	<i>Construct</i>	<i>Operational definition</i>
1	Supply chain management	The continuous deliberate effort of businesses and the strategies levied across the organisation and within the all-managerial functions for enhancing and sustaining business performance of individual organisation and the performance of supply chain in totality (Mentzer et al., 2001).
2	Supply chain performance	The enactment of assorting of various activities encompassed in the process of supply chain (Srinivasan et al., 2011). The aptitude of an organisation to profitably implement activities with minimum cost while fulfilling and satisfying customer expectations and wants (Green and Inman, 2005). The method of enumerating the efficacy and usefulness of an act (Arbjørn and Luthje, 2012; Gunasekaran and Kobu, 2007).
3	Supply management capability	The phenomena of functional flexibility, cooperation with external suppliers and their emphasis on product expansion and process enhancement, degree of assimilation in operations and enablement of suppliers (Selvaraj and Wesley, 2020).
4	Supply chain flexibility	A business's capabilities to address risks by aptly analysing various prospects and coercions of the market. The capacity of the business to manufacture new products aggressively (Latunreng and Nasirin, 2019; Koste and Malhotra, 1999; Narasimhan and Das, 2000; Vokurka and O'Leary-Kelly, 2000).
5	Risk management capability	The probability and effect of various business functions or circumstances that have an inverse impact on any fragment in the entire supply chain, therefore leading to ambiguities and abnormalities at multiple levels of operations (Ho et al., 2015).
6	Customer relationships	Managing customer and delivering value by effectively addressing and controlling, using technology and AI as well as disseminating data and maintaining cooperation (Lee and Lee, 2015).
7	Social sustainability orientation	Businesses acknowledge the effect of its functioning on the external environment and society at large and the efforts to reduce such impact, which in turn directs the decision-makers across various processes (Marshall et al., 2015; Croom et al., 2018).
8	Global supply chain value creation	The assortment of various functions executed to plan, manufacture, promote, supply, and sustain the product in the global marketplace (Porter, 1998).

Figure 1 Proposed conceptual framework

3 Research methods

3.1 Participants and procedure

This research aims to understand the relation of ‘supply chain performance’ on ‘global supply chain value creation’ in the new normal era. Researchers implemented random and convenience sampling; however, participants were elected as per convenience sampling during the first phase. Initially, answers were gathered from primary respondents, and after that, referrals suggested by them were considered. Inconvenience sampling, various factors were considered where participants buy things online from various online shopping portals and platforms. This sample also has good knowledge of mobile device usage and technology handling to track the orders placed to multiple e-platforms. Samples were taken from leading shopping centres and arcades from the Delhi-NCR region. The survey instrument was floated online to get responses from various social media platforms and forums.

About the stated study, initially, 937 questionnaires were circulated, out of which 539 responses were gathered. Partial and half-finished responses were omitted, and thus a total of 441 responses were considered and analysed to generate concrete results and conclusions. The data collection phase was shepherded during December 2020 and Jan. 2021, when India came out of lockdown stages.

A questionnaire containing 24 measures based on six factors ‘supply chain flexibility’, ‘risk management capabilities’, ‘customer relationship management’, ‘social sustainability orientation’, ‘supply chain performance’, and ‘global supply chain value

creation' were restrained on a five-point Likert scale. On this scale of 1 to 5, 1 was allocated as strongly disagree, and 5 was considered as strongly agree. Questions related to demographics, online shopping, frequency of online shopping, and internet usage was also included in the questionnaire.

The internal consistency indices of the scale considered in this study were reflected using Cronbach's alpha value of 0.899. On an individual basis, Cronbach's alpha was higher than the minimum cut-off of 0.70 (Nunnally, 1978; Nunnally and Bernstein, 1994).

To address the described objectives, tools and techniques used were exploratory factor analysis (EFA) and confirmatory factor analysis. Further, to cross-check and authenticate the factors under the study structural equation modelling (SEM) technique was applied to understand each factor's degree of influence or impact.

3.2 Data analysis

3.2.1 Exploratory factor analysis

The main aim of adopting EFA was to verify whether the items are aptly loaded with their corresponding factors and identify the total number of factors extracted by eigenvalues (Hair et al., 1998). A total of 24 variables from six elements were used, which were acknowledged from the existing researches. It resulted in six factors with 21 variables; the rest three variables got deleted, where these six factors accounted for 68.8% of total variance which gives an acceptable value (Gupta and Kumar, 2017; Jhamb and Gupta, 2016).

3.2.2 Measurement model

To verify the stated structural model, the researchers implemented a two-step statistical analysis endorsed by Anderson and Gerbing (1988). In the initial phase, the measurement model's reliability and validity were taken into consideration, and then the proposed hypothesised relationships were verified by deploying path analysis. The confirmatory factor analysis results reflected that both the reliability and validity of the measurement model are well accepted (Sadhna et al., 2020; Gupta et al., 2019). Table 2 of the study revealed various latent variables have a composite reliability value of more than 0.70, which further showcases the stated model's good reliability. Thus, to identify convergent validity, a two methodology was deployed (Fornell and Larcker, 1981). Initially, all the standardised factor loadings should be significant and greater than 0.70. In the second stage, all the factors should have equal to or more than a 0.5 value of average variance extracted (AVE). The value of composite reliability should be more than the value of AVE for that construct (Aggarwal et al., 2019; Dhiman et al., 2018).

Table 2 shows that all the factor loading has more than 0.7 as standardised factor loading except three variables, CRM3, SCP3, and SSO4, which got deleted due to poor factor loading (Sharma and Gupta, 2020; Sood et al., 2019). Following the criterion specified by Bagozzi et al. (1991), we retained this variable. AVE ranges between 0.538–0.720, which is more than the cut-off value of 0.5 (Fornell and Larcker, 1981). Therefore, the results of Table 2 showed that the measurement model had achieved convergent validity

Table 2 Convergent validity

<i>Factors</i>	<i>Final standardised loadings</i>	<i>Composite construct reliability</i>	<i>Average variance extracted</i>
<i>Factor 1 – supply chain flexibility</i>			
SCF1	0.7910	0.924	0.555
SCF2	0.7010		
SCF3	0.7320		
SFC4	0.7550		
<i>Factor 2 – risk management capabilities</i>			
RMC1	0.7810	0.921	0.542
RMC2	0.6900		
RMC3	0.7212		
RMC4	0.7510		
<i>Factor 3 – customer relationship management</i>			
CRM1	0.791	0.81	0.59
CRM2	0.740		
CRM4	0.765		
<i>Factor 4 – social sustainability orientation</i>			
SSO1	0.885	0.858	0.603
SSO2	0.79		
SSO3	0.721		
SSO5	0.699		
<i>Factor 5 – Supply chain performance</i>			
SCP1	0.8010	0.809	.586
SCP3	0.7890		
SCP4	0.7040		
<i>Factor 6 – global supply chain value creation</i>			
SCVC1	0.7900	0.825	0.612
SCVC2	0.7340		
SCVC3	0.8210		

Table 3 Discriminant validity

<i>Factors</i>	<i>M</i>	<i>SD</i>	<i>SCF</i>	<i>RMC</i>	<i>CRM</i>	<i>SSO</i>	<i>SCP</i>	<i>SCVC</i>
Supply chain flexibility	3.89	0.8	<i>0.81</i>					
Risk management capabilities	4.15	0.79	0.12	<i>0.76</i>				
Customer relationship management	4.02	0.75	0.07	0.4	<i>0.77</i>			
Social sustainability orientation	3.72	0.81	0.11	0.2	0.01	<i>0.77</i>		
Supply chain performance	4.12	0.78	0.09	0.09	0.12	0.31	<i>0.74</i>	
Supply chain value creation	3.60	0.87	0.13	0.11	0.18	0.29	0.16	<i>0.73</i>

Note: The italic numbers in the diagonal are square root of AVE.

In context to outcomes showcased in Table 3, it imitated descriptive statistics and discriminant validity. The values reflected that the inter-construct correlation values were less than the AVE's square root for that construct. Hence, it can be concluded that the stated measurement model caters to the criteria of discriminant validity. Moreover, the results reflected a positive relationship between all the stated latent variables.

3.2.3 Path analysis

We applied SEM to conduct path analysis, i.e., PLS modelling using SmartPLS 2.0. Further, from the past evidence of literature, it has reflected a massive influence in technology adoption and information (Ringle et al., 2012). Also, because of its heftiness, the factor weighting is counted for internal weighting. Further, to attain inference statistics, a technique named bootstrapping was deployed with 5,000 bootstrap samples.

Results of Table 4 depicted that supply chain performance has a positive and significant influence in creating global supply chain value creation ($\beta = 0.162$, $t = 4.08$, $p < 0.05$). Therefore, H1 was accepted. Results also manifested that supply chain flexibility has emerged as a highly significant and positively influencing parameter in explaining the supply chain performance ($\beta = 0.260$, $t = 5.9$, $p < 0.05$) as this can be observed and seen how organisations has customised their services during COVID-19 times to reach out the customers. Hence, H2 was accepted.

Table 4 Hypothesised relationships

	<i>Relationship</i>	<i>Std. β</i>	<i>t-value</i>	<i>SE</i>	<i>p-value</i>	<i>Decision</i>
H1	Supply chain performance → global supply chain value creation	0.169	4.08	0.03	***	Accepted
H2	Supply chain flexibility → supply chain performance	0.260	5.9	0.059	***	Accepted
H3	Risk management capabilities → supply chain performance	0.125	3.0	0.05	***	Accepted
H4	Customer relationship management → supply chain performance	0.136	3.12	0.04	***	Accepted
H5	Social sustainability orientation → supply chain performance	0.107	2.5	0.05	***	Accepted

Source: Author's compilation

The path analysis results also showed that risk management capabilities is also emerging as one of the critical influencing components in improving supply chain performance as it has demonstrated positive and significant results ($\beta = 0.125$, $t = 3.100$, $p > 0.05$). This becomes highly relevant in new normal era. The uncertainty has risen to a new level. Organisations are expected to be ready with new flexible polices by minimising their risk and reaching customers in the best possible manner. Hence, H3 accepted.

Further, results showed that customer relationship management and social sustainability orientation also significantly influence the supply chain performance. Hence, H4 and H5 are accepted. Positive impact on student's intentions to shop online ($\beta = 0.125$, $t = 2.589$, $p < 0.05$). Last, results depicted a significant and positive impact of novelty on consumer intentions to buy online ($\beta = 0.108$, $t = 2.214$, $p < 0.05$).

4 Implications

Our empirical results would be relevant for both academicians and practitioners. As per the current scenario, the supply chain is playing a critical role in the success of any organisation; many types of research have undertaken various studies on the role of the supply chain, but the performance of the supply chain may change the scenario drastically, and it will have impact on the global image of the organisation too. This would help get additional value in terms of customer loyalty, brand image, customer retention, and improving word of mouth. Results show supply chain flexibilities are a critical aspect as, during these COVID times, many organisations are going a step ahead in providing customised service to the customers. This study also highlights the importance of risk management capabilities which may help in global value creation.

Every sector is adopting sustainable methods to make their services much more competitive and customer attractive. This can be seen from results that for improving supply chain performance, social sustainability orientations need the hour to be the market and create a global supply chain.

5 Limitations

This research has some limitations that offer future research opportunities as our sample is limited to a geographical boundary. In the future, a more extensive scope can be added. This study has also restricted a particular sector of the B2C model, whereas it leaves a high possibility for the B2B business model. The role of emerging technology can be considered while using that will lead to the study's new tangent.

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