

CONTRIBUTION AND SUGGESTIONS

Managerial implications are presented, and recommendations are suggested in this chapter.

10.1 Academic contribution

This research enhances the literature on logistics resilience and logistics service quality, particularly in the CEP sector, and contributes to the literature on uncertainty preparedness by (i) illustrating the responses of CEPs to unpredictable disruptions and (ii) presenting a methodology for composite index that quantifies CEPs' resilience during such events. (iii) The creation of a Competitive Preparedness Index (CPI) and Courier Service Quality Index (CSQI) represents a novel enhancement to the current body of literature.

While research has been conducted in advanced nations, there is a scarcity of studies on this topic in developing countries. Developing countries differ significantly from developed nations in relations of culture, economics, infrastructure, and customer preferences, etc. This study is an attempt to consider all these aspects in the context of courier services in India.

Many studies in the literature have implemented a framework for selecting logistics service providers (Roy et al., 2020). Therefore, the primary objective of this study is to determine the preparedness score of CEP service providers using industry-specific parameters. This study enriches the literature by developing a methodology to compute composite indices using a modified data-driven approach. It can be applied to assess preparedness in uncertain times, providing a valuable tool for diagnosing and improving resilience during the occurrence of any future disruptive events. This is the first study in India that has attempted to measure the preparedness level of CEPs during uncertain times using the present approach. The ranking of parameters gives service providers insight into the weak aspects that need immediate attention to enhance overall resilience. Emphasizing on the strong areas can maximize output. Managers may use this methodology, adjusting the

indicators according to the industry requirement to determine the preparedness level and take precautionary steps to get ready for any uncertain event.

The topic of service quality has been widely explored in academic literature; however, there is no universally accepted definition or framework for conceptualizing and measuring the service quality of courier operators. This study assessed the perceptions of B2B and B2C customers of courier and express delivery services during the COVID-19 pandemic. The methodology for computing the CSQ Index is a significant contribution to the existing literature, offering a foundational tool for measuring service quality in this sector. This study empirically established the Courier Service Quality (CSQ) scale to measure the courier services' preparedness during a disruptive environment. While the SERVQUAL model is commonly used to evaluate service quality in the marketing domain, this study aimed to develop a specialized framework tailored specifically to the logistics service industry. The findings revealed that the traditional service quality dimensions are not applicable, and a new CSQ model is required. This implies that there is a need for other elements in a service quality model apart from the most popular theories in marketing, depending upon the demand of a specific industry and circumstances such as pandemic disruption. The inclusion of customer disloyalty and willingness to pay in the service quality framework is the main contribution of this study, which will be helpful to retain the customer by eliminating the dissatisfied factors. This study is the first to investigate these direct and a mediator links in the context of the courier sector, while Slack et al. 2020 included consumer loyalty and disloyalty combined in a supermarket context. This study not only understands the antecedents but also the consequences of customer satisfaction. Customer's willingness to pay is also established as a consequence of customer satisfaction, apart from customer loyalty and disloyalty.

10.2 Managerial contribution

The present study's practical implications are wide-ranging. The research has clearly stated the need for a tool to measure CEP service providers' resilience during disruption. It can aid courier service providers in recognizing the significance of competitive preparedness for resilience, particularly in response to unpredictable disruption. So, the Competitive Preparedness Index (CPI) proposed for this study can be used by logistics service providers of different natures and located in different geographic regions to measure their position

in the market. The *developing players* need to focus on their survival and growth to sustain in the market in the event of disruptions. Management of Steady Performers and Developing Players may think of collaboration with the market leaders, such as stellar achievers in the study, for better preparedness. The average performance of private CEPs slightly exceeds the average score, indicating they are performing slightly better than the industry average. The postal department significantly underperforms compared to both the industry average and private players, except in synergistic adaptation. To improve its CPI, it might need to balance its extensive network with more agile and flexible operations that can quickly adapt to changes in the market or unexpected disruptions. The findings can assist governmental entities and organizations in providing support to steady performers and developing players by offering training and resources for development. The CPI might assist stakeholders in choosing appropriate courier services for projects and support government policy formulation in postal regulations. The CPI provides decision-makers and managers with a framework to assess logistics resilience comprehensively and within specific categories, such as business type, facilitating systematic, multi-tiered comparisons. Furthermore, the CPI may assist managers in concentrating resources and efforts to improve preparedness and mitigate constraints on flexibility in operation. The reactive lessons learned from this study can help in tackling other future disruptions with a proactive strategy.

Along with that, the newly developed Courier Service Quality (CSQ) Index will offer managers a benchmark to measure customer satisfaction with CEP services over time. The CSQ index will help them to evaluate the service performance from the customers' perspectives. Both these indices will provide a holistic understanding. Moreover, the two CSQ measurement scales will provide more insights into service satisfaction and expectation of individual and organizational (B2B and B2C) customers. The model explores factors influencing courier, express parcel delivery service usage during disruptive events. It will be helpful for policymakers and businesses to make decisions, focusing on quality, and determine which dimensions need improvement. Due to the emergence of e-commerce, it is very important to understand the needs of B2B and B2C customers, which are slightly different from those of individual customers. Instead of competing, they might augment each other's strengths to improve the business environment. The extensive reach of the India Post must be assessed alongside its

operational inefficiency, whereas the technological advantages of private courier companies should be analyzed in the context of challenges in last-mile delivery.

10.3 Suggestions

- i) **Managerial focus:** *Stellar Achievers* should focus on maintaining their positions as market leaders. For *Strong Contenders* and *Steady Performers*, targeted improvements in operational efficiency and innovation could help bridge the gap with *Stellar Achievers*. For *Developing Players*, foundational improvements in all dimensions, particularly logistics and customer-centric adaptability, are essential.
- ii) **Alternative delivery options:** One pressing issue in the sector is the rising cost of delivery, which highlights the need for customer involvement in the process. Customers can be asked whether they want home delivery or self-pickup. The introduction of self-collection points could be a solution, particularly for working customer segments who might prefer picking up their shipments at a time convenient for them. Mobile pickup centers can be used for easy reach. However, parcel lockers present another option for involving customers in the delivery process. While they offer convenience, they require a higher initial investment compared to self-collection points, which could further drive up delivery costs. In this context, post offices could serve as secure locations for such initiatives. These concepts could be piloted by courier, express and parcel service providers to assess its actual relevance and effectiveness.
- iii) **Competitive-competition:** Adoption of competitive-competition might help them to sustain in a disruptive environment. This means focusing on collaborations while maintaining the competitive spirit. However, due diligence should be given while framing policies, as the absence of effective plans and the government's rigidity may reduce the competitiveness of CEP service operators in the market.
- iv) **Suggestions for India Post:** The study's context-specific methodology is also intended to help India Post's management, marketers, and government obtain a better grasp of these complex occurrences.

- a) Firstly, the goal of the management should be to develop targeted tactics that improve quality, satisfaction, and trustworthiness while reducing customer dissatisfaction. It is also found that satisfaction with the postal logistics services leads to customer retention through loyal customers.
- b) Secondly, the extent of engagement expected from the frontline staff affects the potential for improved serviceability. Government employees need to change and improve their service attitude.
- c) Thirdly, Consumers prioritize affordable over quality during times of economic hardship. However, this study reveals that even customers are willing to pay more if the postal sector is consistent with the quality of services. India Post's rates are *half of private couriers*. Since customers are willing to pay more than the standard price for improved service, India Post may think of launching new premium services such as same-day or express delivery to compete with private CEP service providers, address customer expectations, and increase income significantly. They can initiate a trial project to analyze the discrepancy between demand and supply and assess the effectiveness of the strategies proposed in this study.
- d) Fourthly, as we can see, the demand for e-commerce or online shopping is increasing day by day, which gives an opportunity to get back the glory of the postal department. Some business arrangements can be done, such as when making an online purchase, customers can be given the option to select *Postal Delivery* as their preferred method of delivery.
- e) Fifthly, India Post management at the top level should note the connections among the many aspects of quality of postal services, customer loyalty and disloyalty, and willingness to pay, and develop strategies to sustain in the competitive courier and express industry. Customers are less disloyal in the case of the postal service. Hence, management should take steps to improve the service quality to retain existing customers and attract potential customers.
- f) Finally, the courier sector in India is currently experiencing substantial transformations, as both public and private entities encounter diverse obstacles. Rather than engaging in competition, they have the ability to enhance each other's strengths in order to boost the business environment. For instance, the wide coverage of the Indian postal service needs to be

considered in relation to its lack of effectiveness in operations, while the technological benefits of private courier businesses need to be evaluated in light of the difficulties in delivering to the final destination. One possible approach is to encourage collaboration and harmonization between the postal service and private entities. As a government agency, implementing change may be challenging, but the top management has the necessary skills to strategically plan and ensure its success. During the reform of the *Postal Service Regulations* in India, policymakers should explore strategies to mitigate the disruptions caused to conventional business models and production chains. India Post can make profits by operating better and smarter, and adapting to current demands as well.

- v) **Academic research and development:** Limited communication between the business sector—especially the postal industry—and academia on relevant research topics can hinder innovation within the courier sector (Kincl & Flak, 2021). A pertinent area of discussion is the strength of the relationship between academic research and development (R&D) and the courier sector, along with how communication between these areas might be improved. This also relates to universities' engagement with national regulatory bodies to enhance regulatory policies, both in India and globally. Increasing academic involvement in large workshops, events, and key projects that require advanced expertise is vital. Such engagement could bring cutting-edge knowledge to stakeholders, addressing current challenges and supporting the sector's future goals.

vi) Strategic change proposed for the CEP industry

The strategic changes proposed to the management of CEP service providers, as illustrated in Figure 10.2, are detailed below.



Source: Author 'creation

Figure 10.2 Proposed strategic change framework for CEP service providers

The strategic changes proposed to the management of CEP service providers, as illustrated in Figure 10.2, are detailed below.

a) *Service configuration*

- **Homogeneous service configuration:** CEP service providers employing a homogeneous service configuration prioritize the provision of uniform services to a wide market, striving for optimal efficiency and cost-effectiveness. These organizations optimize their operations to manage substantial quantities of parcels with minimum discrepancies, ensuring a consistent service experience irrespective of the customer or delivery type. Their processes are meticulously organized, prioritizing efficiency, security, and cost reduction through the use of predetermined delivery routes, uniform packaging solutions, and clearly established service standards. The emphasis is on economies of scale, wherein an increased volume of deliveries results in enhanced cost efficiencies, enabling the organization to provide competitive pricing. Customers enjoy consistent service durations and pricing, while customization options for particular needs may be

restricted. Prominent courier companies provide standardized, international delivery services with specified durations and tracking capabilities.

- ***Heterogeneous service configuration:*** Conversely, CEP service providers employing a heterogeneous service configuration prioritize flexibility and customization to address the varied requirements of their clients. These organizations provide a variety of services that can be customized to meet unique customer needs, including the management of specialist commodities (e.g., fragile, perishable, or high-value goods), the formulation of personalized delivery timetables, or the provision of white-glove services requiring additional care for deliveries. In this arrangement, enterprises frequently permit clients to select from multiple alternatives, including delivery speed, care level, or route preferences, and may provide tailored solutions for B2B or B2C logistics. The intricacy of these services necessitates a more adaptable operational framework, yet it also permits premium charging owing to the enhanced value of personalization. Courier services focused on same-day delivery of medical supplies or delicate equipment, as well as premium couriers providing customized services for expensive items. CEP service providers may provide a standard, uniform service for mass-market consumers while offering more adaptable, diverse services to business customers with specific needs. This hybrid strategy enables them to optimize efficiency in high-demand sectors while addressing the specific requirements of clients prepared to invest in additional services.

b) Value creation

- ***Volume:*** In this approach, CEP service providers prioritize executing several deliveries in the lowest possible period to minimize per-unit costs. The concept posits that by optimizing delivery quantities, organizations can exploit economies of scale, hence reducing per-unit costs as service volume rises. This method is most efficacious for enterprises characterized by elevated demand, standardized offerings, and streamlined operations. Courier services manage an increased number of items by refining delivery routes and enhancing operating efficiency. Major courier companies manage substantial shipping volumes every day, leveraging huge networks and infrastructure to provide competitive pricing.

- ***Efficiency:*** Efficiency-oriented value creation emphasizes the enhancement of internal processes, the minimization of waste, and the optimization of resource utilization. Businesses employing this technique seek to deliver equivalent service or product output while reducing operational expenses. Improvements in efficiency may arise from automation, process optimization, or resource management. In courier services, this may entail the deployment of sophisticated route planning software, the optimization of vehicle utilization, the reduction of fuel consumption, or the minimization of idle time for delivery personnel. The objective is to provide additional services with reduced resources, hence enhancing the overall profit margin. An excellent courier service may employ GPS tracking, real-time traffic information, and automated sorting technologies to guarantee swift and economical delivery.
- ***Differentiation:*** Value creation through differentiation emphasizes the provision of distinctive and superior services or products that distinguish themselves in the marketplace. This strategy focuses on niche markets or specialized requirements, enabling enterprises to command a premium price for the additional value they provide. Differentiation can be attained via innovation, exceptional customer service, customization, or brand repute. Courier services may entail differentiation by providing premium offerings such as same-day delivery for urgent items, customized delivery experiences, or the management of fragile deliveries, temperature-sensitive products. These organizations serve clients who prioritize service quality and are prepared to invest more for reliability, flexibility, or specialist handling.

c) Linking Business processes

The strategic approach directs the service configuration, dictating whether the enterprise should prioritize uniformity (homogeneous) or customization (heterogeneous). This decision influences the operational efficiency of the business and its capacity to fulfill consumer requirements. The service design influences the organization's capacity to generate value via volume, efficiency, or differentiation. A standardized, uniform architecture generally facilitates a cost leadership approach centered on volume and efficiency, whereas a more adaptable, diverse configuration corresponds with differentiation tactics. The capacity to generate value immediately impacts a business's

success and market standing, as value creation guarantees the fulfillment of client needs while sustaining profitability. A worldwide courier such as FedEx may implement a cost leadership strategy by utilizing a uniform service model that facilitates high-volume, standardized delivery. This enables the organization to generate value through scale and efficiency by providing competitive pricing and rapid service across extensive geographic regions. A niche courier service specializing in delicate medical equipment or temperature-sensitive products may employ a differentiation strategy with a diverse service configuration. This enables them to generate value via differentiation, providing specialized services that warrant elevated expenses.

d) Strategic orientation

- **Standardization:** CEP service providers seeking to improve competitiveness by standardization concentrate on efficiently delivering a restricted array of services at scale. By providing standardized delivery services—such as parcel delivery with fixed prices, assured delivery times, and optimized logistics—these enterprises can realize economies of scale, thereby substantially reducing operational expenses. Global courier leaders have standardized their operations by optimizing logistical networks, utilizing technology for tracking, and automating sorting facilities to manage substantial volumes. This standardization enables them to cater to extensive customer bases at cheap prices while preserving operational efficiency. To remain competitive, courier companies may invest in automated logistics systems, route planning software, and centralized warehousing, all of which can improve efficiency and support cost leadership.
- **Customization:** CEP service providers emphasize customization by providing highly tailored services, hence crafting distinctive consumer experiences. This method is especially advantageous for premium clientele necessitating specialist services, including high-value shipments, fragile or sensitive items (e.g., medical equipment, medications). These courier firms offer a customizable delivery framework for consumers, enabling them to adjust their deliveries according to real-time requirements, with the possibility of direct engagement with the service provider. Such enterprises cultivate robust customer relationships by providing premium, value-added services that warrant elevated rates. This is evident in specialized logistics services catering to high-end clients, where personal

interaction and direct involvement with the courier service guarantee pleasure. To enhance competition, courier companies in this sector may concentrate on individualized customer service, specialized account management, and customized delivery alternatives. This technique is optimal for logistics firms focusing on premium, specialized markets.

- **Capacity-driven:** CEP service providers, particularly smaller or local companies, function on a capacity-driven model—delivering services in response to customer demand without a distinct emphasis on standardization, flexibility, or individualization. Although they can fulfill immediate supply requirements, their absence of a strategic focus frequently hinders productivity enhancement and market share expansion. As they expand, their demand for greater capacity results in elevated costs without proportional improvements in efficiency or competitiveness. To enhance competitiveness, these enterprises must establish a definitive strategic focus—either by standardizing their services to optimize operations or by differentiating their offers to deliver greater value to customers.

e) Business-specific factors

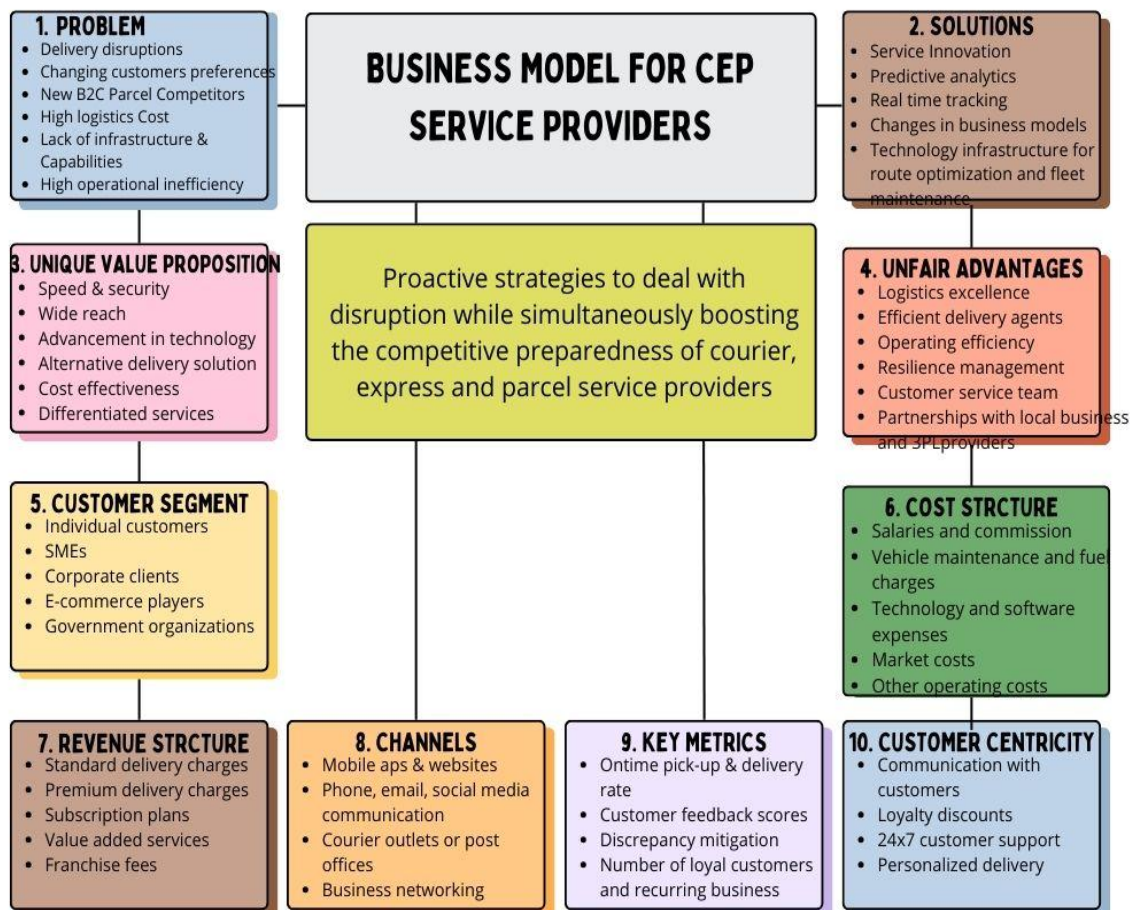
- **Firm-specific knowledge:** Firm-specific knowledge denotes the distinctive insights and information a company acquires over time by experience, internal research, and consumer interactions. This encompasses a comprehensive grasp of operational intricacies, market dynamics, and consumer inclinations. In courier services, firm-specific knowledge may encompass comprehension of optimal delivery routes, specialized handling for certain commodities, and utilization of past data to forecast high-demand periods. *Route optimization*, utilizing past delivery data to ascertain the most efficient routes for minimizing transit durations and fuel expenditures. *Consumer Insights*, comprehending distinct consumer preferences (e.g., favored delivery intervals, packaging varieties) to enhance service tailoring. *Risk management*, understanding of industry-specific hazards, including meteorological disturbances, labor disputes, or regulatory modifications, enables organizations to proactively modify operations.
- **Capabilities:** Capabilities are the operational and managerial strengths enabling firms to continuously provide high-quality services. CEP service providers may possess complex logistics management systems, cutting-edge sorting facilities, and a flexible workforce to adapt the changes due to disruptive events. Expertise

involves knowledge and skills within the organization that can propel innovation and service excellence. In the courier sector, proficiency may encompass specialized services such as the handling of perishable items, temperature-sensitive deliveries, or the management of foreign shipments subject to intricate customs procedures. *Specialized deliveries*, companies with proficiency in industries such as pharmaceuticals, food distribution, or high-value commodities, can provide niche services that set them apart from rivals. *Regulatory compliance*, proficiency in global shipping regulations, customs procedures, and cross-border logistics guarantees seamless international operations. *Technology deployment*, proficient in implementing sophisticated tracking systems, route optimization tools, and customer service platforms to improve the comprehensive customer experience.

- ***Adaptability:*** Adaptability is an essential strategic method for CEP service providers to improve resilience amid disruptions. It entails adjusting operations and processes to promptly and efficiently address unexpected occurrences such as supply chain failures, natural calamities, or market disturbances. By demonstrating adaptability, they can alleviate the effects of such shocks, facilitating quicker recovery and potentially emerging more robust thereafter. Adaptability allows them to mitigate interruptions, sustain critical activities, and execute efficient recovery strategies. Essential factors that facilitate flexibility are swift decision-making, the choice between centralizing or decentralizing responses, and the capacity to pivot or maintain stability as required. In the courier sector, flexibility guarantees service continuity during crises, facilitates adaptive responses to market demand fluctuations, and enhances the provider's resilience to future disruptions.
- ***Collaboration:*** Collaboration with external partners, including suppliers, technology providers, and other logistics companies, augments a courier firm's capacity to scale and enhance efficiency. Collaborative endeavors enable enterprises to access novel competencies, exchange resources, and accelerate innovation. Implementing collaborative techniques enables firms to accelerate growth, save expenses, and enhance service coverage, thereby improving their market competitiveness. *Collaborations with technology suppliers*, partnering with GPS tracking providers, fleet management software developers, and AI-driven routing solutions can markedly improve operational efficiency. *Logistical partnerships*, collaborating with other courier companies for cross-country or last-

mile deliveries, enable enterprises to broaden their geographic scope without substantial capital expenditure. *Customer collaboration*, engaging with clients for comments and insights, enables courier companies to refine their services, provide value, and sustain robust connections.

vii) Business model for courier, express, and parcel service providers



Source: Author's creation

Figure 10.1 Proposed business model of CEP service providers

The proposed business model for this study provides a strategic framework to enhance the resilience and competitiveness of CEP service providers (Figure 10.1). This model outlines essential elements critical to the CEP industry's operation and customer satisfaction. Key elements focus on delivering a strong value proposition through efficient channels, targeted customer segments, and robust customer relationships, ensuring that CEP service providers meet the demands of a dynamic and highly competitive market. Central to this model is the introduction of resilience management and competitive preparedness as

important aspects for the courier industry considering the disruptive events. This addition emphasizes proactive strategies like service innovation, risk monitoring, and predictive analytics to help providers prepare for and effectively respond to disruptions. By addressing both operational efficiency and disruption resilience, this business model aims to support CEP providers in sustaining the evolving landscape. This serves as a comprehensive guide for CEP providers aiming to deliver reliable, resilient, and customer-centered services in a competitive as well as disruptive market

10.4 Limitations and future scope

- Scholarly literature emphasizes the necessity of testing models and instruments in many situations to foster generalizability and deepen the understanding of theories. Since this is a new conceptual model developed to capture the need of a disruptive environment, this model needs to be tested in different segments of the logistics industry and supply chain as well.
- The public-private partnership (PPP) in the courier industry requires thorough exploration of how to maintain competitive delivery costs while facilitating synergy, enhanced efficiency, modernization, and economies of scale within the Indian postal sector.
- Future studies may concentrate on reconciling definitions of constructs and evaluating methodologies for integrating resilience measures from diverse sources through the composite index technique defined in this paper. Moreover, extending and modifying the composite index to evaluate resilience in additional sectors and varying sample sizes may identify the specific nodes that most substantially influence or risk supply chain resilience.
- Cross-country analysis can be done by comparing the resilience management of CEP service providers in India and other countries using the CPI and CSQ.
- Other approaches to compute composite index, such as participatory-based approach, machine learning, etc., can be explored in further studies.