

# Role of e-tailing: a new way of business during COVID situation in India – a critical view

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## Abstract

**Purpose** – The COVID-19 situation affected the whole landscape of retailing in India and around the world. However, some businesses have used the pandemic-related difficulties into opportunities. E-tailing is one of the ways that helped people in India to continue shopping their essential products and choosing their luxury products without making any physical visits during the lockdown. This research understands the current situation through an observation study and suggests the e-tailing model suitable during the COVID-19 and beyond.

**Design/methodology** – We used secondary data to make the observational study. We also conducted two case studies and interviews with grocery shops and an automotive company.

**Findings** – This research suggests a simple collaborative e-tailing model combining all supply chain players to reduce people's movement, timely delivery and enhanced service to meet customers demand during the lockdown period.

**Originality/value** – This paper has considered two real cases for discussion and also obtained information from public domain. The proposed model has been discussed with the case companies, and it hoped to support business planning for online services.

**Keywords** COVID-19, Retailing, Secondary data, Case study, Logistics, E-tailing model

**Paper type** General review

## 1. Introduction

Before COVID-19 pandemic, India and China have been classified as fast-developing BRICS nations having a great growing strength in mobile and smart technology. This technology advancement enhanced online sales in retail sector (e-tailing) for high-value electronic or automobiles or sports products and low-value grocery or stationary products. The online sales increased the movement of products from manufacturers and retailers to buyers, resulting in huge increase in the demand for logistics services. While every country is trying to achieve the global sustainable goals in many unique ways, some countries including India have been trying to focus on reducing carbon emissions without having many regulations for strong implementation. Ultimately, metropolitan and cosmopolitan cities faced a heavy traffic congestion involving public transport and goods transport.

During this pandemic, the use of public transport for people movement is withdrawn, but e-tailing-related logistics and distribution have been ramping up heavily. As the e-tailing helps social distancing, people will not have to go out during the lock down period for their regular shopping. Our research is exploring how local businesses, suppliers and logistics



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providers can work collaboratively, sharing their resources such as warehousing, transportation and delivery to achieve local norms of health concern and social distancing and also maintain environmental sustainability by having win-win situation for all stakeholders involved.

We conducted case study interviews with two entirely different businesses, namely a grocery chain and an automobile manufacturer, before COVID-19 situation to understand the difficulties in delivering online orders. The interview protocol developed for this research study is given in the [Annexure](#). We also tried to understand factors behind environmental sustainability in e-tailing operations. Now we have extended this research with the same company after COVID-19 situation. Although all nations throughout the globe are focussing on COVID-19 rescue operations, a small effort in e-tailing supply chain distribution can help reducing movement of people. These difficulties are discussed further to realise maximum benefits of converting difficulties into opportunities through a collaborative approach. Our research will provide a new online e-tailing model to implement good practices to a wider society to enhance quick delivery with high impact of sustainability at this difficult time of global epidemic. We will create a conceptual model to show strength of collaboration among established and small grocery businesses to achieve a win-win situation.

## 2. What is e-tailing in India?

Online technology is cutting-edge in everyday life in both developed and developing nations alike. This advancement in e-technology has simplified many service provisions, for example, booking for COVID testing and screening through online websites. In this case, the service providers plan and manage their capacity effectively based on online booking data. Meanwhile, in case of e-tailing for products (both perishable and non-perishable), the seller will need to plan inventory, storage and physical distribution. Demand data available from the e-tailing will prompt the entire supply chain players to make planning on production, warehousing and distribution. However, any improper analysis will increase the cost of inventory, resulting in a huge loss and obsolescence.

Invent of social media and smart phone technology allows more and more buyers to use e-tailing, which necessitates simple but efficient supply network to meet the actual demand ([Ramanathan \*et al.\*, 2017](#)). For businesses with traditional central warehousing, the number of deliveries will increase as orders are placed from different locations via e-tailing, but business collaborations for green operations and logistics services can help find locations of multiple small warehouses using a resource-sharing approach. Collaborating businesses will share their variety of resources such as warehouses, retailers' space, logistics and distribution centre. This creates opportunities for all players and reduces the unnecessary non-value-adding operations and facilitates green sustainability. Many retail business models in developed nations such as Argos-Sainsbury's and John Lewis–Waitrose and Walmart–P&G and car manufacturers Vauxhall, Opel and Nissan share their warehouses, office spaces, production and deliveries. A similar approach or a modified tailor-made e-tailing model could be adapted to Urban India, mainly in Bangalore city especially at this pandemic outbreak.

Here it is worth mentioning that academic literature on operational and sustainable issues related to e-tailing is not widely discussed in the Indian context, though the importance is highlighted in studies like that of [Bisen \*et al.\* \(2013\)](#). However, business analytics and online sales are highly researched areas in practitioners' perspective. Our initial information search has included articles published in the last five years in India as online sales have become quite a common phenomenon only during this period ([Agarwala and Yadav, 2015](#); [Sinha \*et al.\*, 2015](#); [Kalia, 2015](#); [Anuj \*et al.\*, 2018](#); [Khan and Syed, 2018](#); [Pandey, 2019](#); [Joshi, 2020](#)). Keywords used for the search are online sales, e-tailing, sustainability, resource/capacity sharing. We have identified that emergence of online sales (e-tailing) in India is highly related to the online trust

which was established between the customer and the sellers through established online platforms such as Amazon and Flipkart in recent years. They provide grocery-related and fresh food items-related services on limited basis. This has necessitated local shops to enter into the online sales arena alongside regular brick and mortar business. These small businesses such as BigBasket use their own logistics and distribution facilities using inexpensive labour. Although there were few initial hiccups in gaining customers' trust for online payment, bank transfer and delivery quality, collaboration between supermarkets and local small grocery shops helped delivering quality goods to the local neighbourhood quickly with less food miles and short delivery time.

### **3. How does e-tailing operate in India for grocery and food products?**

In this exploratory research we aim to

- (1) Understand the current role of e-tailing in retails' operations in Urban India (specific to Bangalore city).
- (2) Investigate the areas of operations where sustainability can be achieved in a short term in e-tailing in Urban India in relation to the best practices identified.
- (3) Propose a practically viable collaborative e-tailing model involving big retailers and local small- and medium-sized enterprises (SMEs) to implement good practices to follow during COVID-19.

Finally, we will formulate a structured e-tailing model to be followed by e-tails in highly volatile markets like India.

In order to achieve our research objectives, we conducted a case study with an e-tail company located in Bangalore and got access to their company information. We also interviewed a few business partners of the company. First, we conducted semi-structured interviews with businesses (suppliers of G-Shop, G-Shop - focal company, buyers of G-Shop) who handle both e-tailing and traditional retailing using physical space. Information from the structured interviews, the analysis of the existing literature on model for the e-tailing and the e-tailing data from the focal company (G-shop) will support developing a conceptual model of e-tailing.

G-Shop is a superstore located in Bangalore, India, operating in two different prominent places in Bangalore, selling household items, grocery items including fruits and snacks. G-Shop is the manufacturer and distributor of their own savouries/snacks items. These products are being sold through their own outlets and also through other vendors operating in various kiosks in Bangalore. G-Shop is a family business owned and managed by young entrepreneurs who like to instill innovative ideas of e-tailing in India. Currently the company is employing 80 full-time and 10 part-time workers. The manufacturing unit is located in two different locations with two warehouses and three distribution centres.

When we conducted the study with G-Shop on green operations of online retails in Bangalore city in 2018, we inferred that businesses that work collaboratively in e-tailing could achieve green sustainability. The findings from the data analysis revealed the feasible approach to increase the sustainability of e-tailing in line with much established frameworks followed in successful global businesses. While comparing the two different scenarios of the same business before and after COVID-19, we could understand that our earlier recommendations from the research team on collaboration between established businesses and small local businesses for the purpose of carbon reduction are currently considered in business operations during this COVID-19 pandemic to reduce the total number of travels.

Before exploring the existing models, we try to understand the status of e-tailing in Urban India to get a complete picture of drivers and barriers of using e-tailing for businesses.

Accordingly, this research will investigate what areas of operations within e-tailing can gain sustainability in Urban India, specific to Bangalore city.

We have conducted the proposed research in two stages:

Stage 1: Understanding and analysing the operations underlying e-tailing by studying the current drivers and barriers of e-tailing for businesses in Urban India – case study and secondary data

Stage 2: Formulate a conceptual model relating the operations such as warehouse location, delivery and the product demand from the case study – e-tailing model

By interviewing the operations manager and top management personnel (CEO), we understood the barriers and drivers of e-tailing. Before pandemic outbreak, the grocery shopping via online was considered “waste of time and expensive options” (barriers). As many customers preferred to visit the store to check quality of the items before purchase, e-tailing was used mainly for non-perishable and non-edible items as they do not need specific quality assurance, but brand name will support purchase decisions (drivers). The sales data from the company along with their logistics and warehouse data supported our observation on the role of e-tailing for non-food items such as long-life groceries and washing products.

Customers in India make online orders for electric, electronic and other sports products. Their purchase decision is normally based on the price of the product, while the supplier, such as Amazon and Flipkart, accepts the order based on location of the orders, cost of delivery and time of delivery. In a normal scenario, every online order from a customer will be processed after the system generates orders (see Figure 1). Then this order will be passed on to the company warehouse to check for its availability in the current stock level. The closest warehouse to the local retail store will be considered for pickup before it is delivered to the customer. This will reduce the total journey time and the number of miles of travel of the product and hence will reduce the transportation cost. At the time of COVID, movement of people and items is restricted and hence e-tailing has reached its peak for regular grocery shopping in India.

This has created a new opportunity for e-tailing, but shortage of capacity due to sudden peak in the online demand made the businesses to establish new collaborations for quick delivery with limited logistics. To meet the demand, big retail stores started collaborating

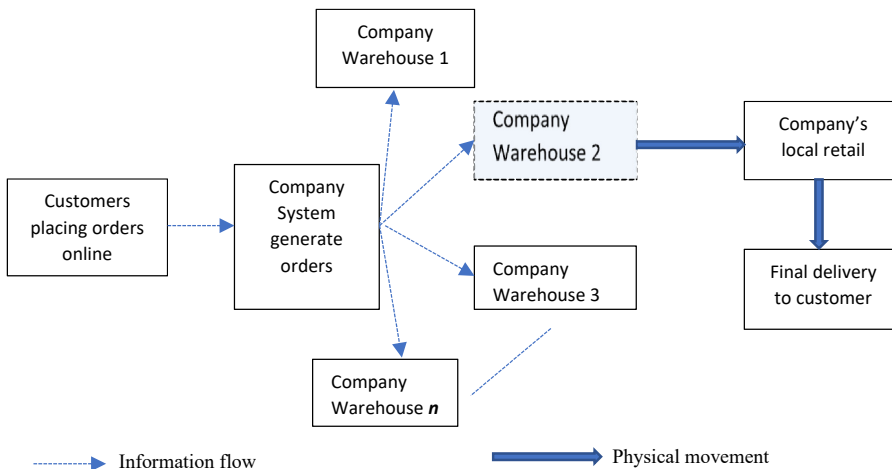


Figure 1. E-tailing during normal time

with logistics operators. Still a high level of collaboration with local shops is not vastly in practice. We suggest the big retailers to collaborate with local convenience stores to distribute items to customers. For instance, if an order is placed by a customer online, the company can look for items in their own warehouse as well as in local collaborating partners (convenient stores) to deliver the item to the customer. This will create less travel and quick service. Local employment will be enhancing the economy (see Figure 2).

#### 4. E-tailing development in India

In this technology era, smart phones and Internet heavily influence online retailing (famously mentioned as “e-tailing”). Today, the increasing number of e-tailing supports 21st century businesses to achieve a high level of customer satisfaction (Wang and Head, 2007; Ramanathan et al., 2017) and this also necessitates the importance of careful planning and coordination among producers, distributors and retailers. Failing these will increase the number of warehouses, logistics and supply-demand balance, which in turn completely ruins the sustainability objectives of e-businesses (Ramanathan et al., 2014). High level of collaboration among businesses specifically for production planning, storage and distribution will reduce CO<sub>2</sub> and control wastage. Simple Internet of Things technology such as auto replenishment based on electronic point of sale data can reduce the level of complications. Countries like India which heavily invest in technology can make use of its technology advancement for monitoring warehouses; movement of goods while e-tailing is in place.

In order to embed the e-tailing with routine operations, a strong collaboration is required for information and infrastructure sharing. Basic online orders and sales data analysis will support operational efficiencies (Ramanathan et al., 2017). In Urban India, increase of smart phone technology is steadily showing increased trend of e-tailing. Analysing the sales data from e-tailing will help to understand customers’ buying trend, barriers and drivers of e-tailing. A detailed study can look at two important dimensions of e-tailing – products that

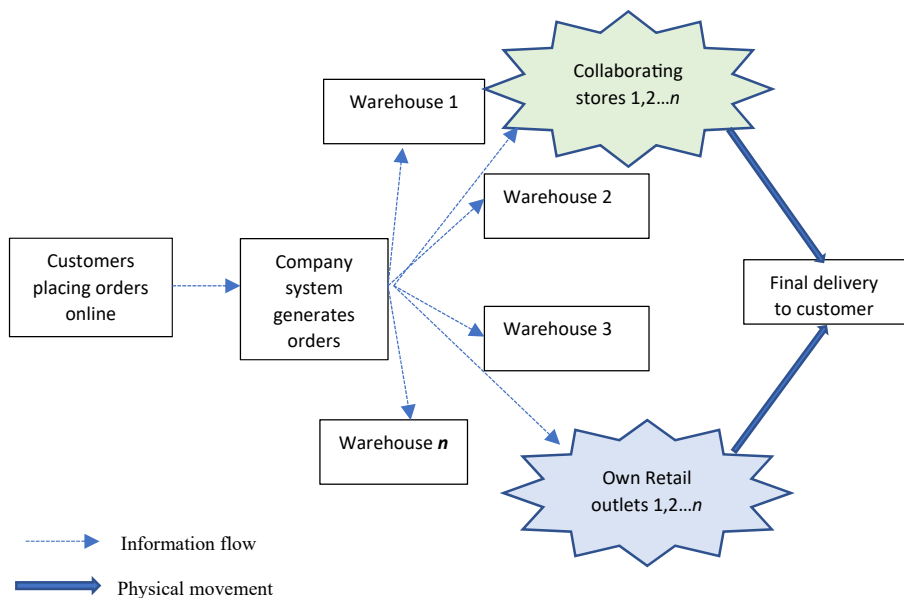


Figure 2.  
E-tailing during  
COVID-19

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are frequently bought via e-tailing and location of delivery address for orders via e-tailing. Based on these two important pieces of information, we can find out a correlation between products and the location of demand. The results can suggest ideal locations for collaborative operations based on the demand of the products and possible green operations. This will also create a structured approach to choose the warehouse and distribution centres with less carbon footprint. Further suggestions will consist of collaboration in the form of business partnership with local retail stores and outlets who can deliver the product to final destination with less logistics support and optimal warehouse capacity. The focus of the model will be

- (1) Reduction in logistics operations
- (2) Reduction in carbon emission (CO<sub>2</sub>)
- (3) Optimal number of warehouses with less carbon footprint
- (4) Green – last miles services using electric vehicles or any alternative transport

In turn, this will help to maintain sustainable operations in e-tailing. Both the current and future generations of Urban India will be benefited greatly from the outcome of this project by having structured warehouse and logistics options and sustainable operational solutions with increased demand.

This new proposal of new e-tailing model will help the businesses achieve sustainability using the available resources, and hence there is no need for any extra investment. On successful implementation of this model, future businesses can assure of less carbon footprint in their operations. The proposed “e-tailing model for sustainability” will serve as a basic framework for new businesses who intend to adopt the sustainability operations. The same model will serve as a structured tool kit for the businesses that are already practicing sustainability in their daily operations but having interest to outshine the sustainability objectives. This will create a momentum of sustainability in the context of e-tailing. We further discuss this model in the automobile sector.

## 5. E-tailing on automobiles

Amidst the COVID-19 pandemic outbreak and imminent economic recession, it is expected that global automotive e-tailing market will grow by a projected US\$50.2bn driven by compounded annual growth rate (CAGR) of 13.7% ([Global automotive e-tailing industry, 2020](#)). In a post COVID-19 era, it is anticipated that automotive original equipment manufacturers (OEMs) from developed and developing economies will reset the market to a new normal. This is through continuously redefining and redesigning the present business model as the evolving market conditions allow automotive firms to manage the change, adaptability and business uncertainty.

Introduction of new vehicles and rise in the vehicle demand increases the market growth. This is supported by Internet penetration, technological infrastructure and growing trend of online purchases especially across the Asia–Pacific, North America and Europe regions. Automotive e-tailing ecosystem includes automotive OEMs, component manufacturers, third-party after-market vendors chosen by OEMs, online retailers and e-tailing service providers. Automotive e-tailing market is driven based on the increased demand for the automotive components. This is due to an increase of average age of vehicles. Convenient online shopping experience has driven customers to understand and compare the price differences via Internet prior to purchase. Increased spending on analytics by automotive firms also facilitates the consumers to select a passenger vehicle (product) with customised features. COVID-19 pandemic outbreak accelerated the e-tailing business over physical retailing among global markets in the purchase of new passenger

vehicles and components as it reduces the logistics operations. Operational performance of any new business can be enhanced through dynamic processes in both brick and mortar model and also in ecommerce (Cosenz *et al.*, 2021; Bianchi *et al.*, 2018). Increasing e-tailing share limits the firm's capital expenditure and brings the agility in automotive components or vehicle distribution.

## 6. How does e-tailing operate in the automotive sector?

E-tailing requires automotive firms to modify their business models to fulfil the orders and capture the sales through Internet. This can include integration of distribution channels such as warehouses, Internet webpages and product shipping centres to perform the sale of goods and services through the Internet. Tesla Motors introduced a new business model to sell its electric vehicles (final product) to consumers directly instead of licencing its cars with dealerships. When the consumer is ready to purchase, they can do so through Tesla's in-store digital design centre with the additional sales team support. The information flow and physical movement flow is similar to the model as shown in Figure 2. Post COVID-19 situation, e-tailing has increased considerably across other global automotive OEMs and component suppliers due to stay-at-home and social distancing norms dictated by the government in their respective countries. This change in consumer behaviour forced automotive firms to increase their preparedness over e-tailing business.

To perform e-tailing, auto firms need to introduce or outsource the key roles as follows: (1) web design and development – to build capabilities such as proficiency of visual arts, software's and technology platform know-how's, (2) search engine optimisation (SEO), (3) online merchandizing to assess the consumer online trends and (4) content and photography. In addition, firms engage with e-tailing service providers to perform functions such as (1) analytics – to analyse consumer behaviour for insights and decision-making inputs, (2) marketing – to attract new customers to the website, (3) content development – create and maintain the content about the products and (4) packaging – develop, design and manufacture packaging solutions. Hence, implementing e-tailing set-up requires an investment to perform operations in line with the government compliance from the respective markets.

E-tailing also brings out the limitations as follows: (1) online payment frauds, (2) late or inaccurate product delivery derails the value for the customer, (3) increased share of counterfeiting of automotive parts and (4) lack of clarity over policies on product return due to transport damage. It is necessary for the automotive firms to build and integrate the risk mitigation efforts with the core operational processes to undergo the software testing and conduct trials to ensure the system reliability to overcome the listed limitations.

In India, growth of e-tailing business in the automotive sector will have the following business influences: (1) transaction cost reduction, (2) employment generation in logistics, telecom and information technology sectors, (3) facilitated growth of the associated industries and (4) promotion of entrepreneurship. The beneficiaries of growth by adapting the automotive e-tailing will be (1) OEMs and suppliers, (2) infrastructure and service provider firms such as logistics, warehousing, technology, banking and marketing and (3) e-tailing industry workforce. E-tailing promotes automotive brands like any other consumer brands to follow the direct go-to market approach.

Indian e-tailing service provider firms currently perform to implement the e-tailing business for global automotive firms especially for markets such as USA and Europe. Post-COVID-19 era will bring out the opportunity to expand the e-tailing service provider business within Indian domestic automotive OEMs and component supply base through the business partnership.



## 7. Discussions and practical implications

In this research, we discussed existing good practices of operations to maintain sustainability in the e-tailing in Urban India. The proposed e-tailing model (Figure 2) will act as a base model that could be adapted to other urban cities. This approach will help to develop a structured framework of e-tailing for Urban India. The main novelty of this research idea is implementation of the framework in a real e-tailing set-up and testing its effectiveness through businesses involved in both the e-tailing and traditional “brick and mortar” business model.

Short-term impact of e-tailing in routine operations can be tested to see its benefits to the e-tailing companies and their green objectives. This in turn will help enhancing the environmental sustainability in the local society. The outputs from this research are not restricted to one specific business but span to all e-tailing business in the Urban India. The new e-tailing tool-kit can be deployed by any business trying to exercise their sustainability practices in their business with increased social awareness. This will create a continuum of sustainable e-tailing businesses in collaboration with local businesses, which can enhance the sustainable operations with less CO<sub>2</sub> and reduced carbon footprint through efficient logistics and warehouse management.

Digital retail is a global trend fostered across all industries by COVID-19. In the automotive sector, e-tailing acts as an integrator of product, technology, logistics and infrastructure and makes an efficient marketplace for suppliers and consumers. E-tailing is potential for vehicles and parts and offering the additional services in business to consumers (B2C). In e-tailing business, consumers want the goods quickly and have them shipped to their homes; hence, unlike physical retailing, deliveries of small quantities need to go to a broader number of destinations by maintaining the inventory on hand. Hence, it is essential for automotive firms-owned aftermarket warehouses to keep the parts to meet the replenishment. Post COVID-19 era, introduction of e-tailing in an automotive business permits firms to form a new mobility supply chain model to meet the order fulfilment and distribution.

Expecting the change in consumer behaviour post COVID-19, technological revolutions and broader Internet usage in India influences automotive sector to get ready with e-tailing business to allow the buy and sell online which also supports Digital India from the government. Automotive business growth, Internet habituated customer, auto components with competitive rates and increased focus on analytics are the potential drivers for e-tailing business in India. Increased parts complexity, constant product and technology upgrade actions and price transparency are considered as key barriers or challenges of automotive e-tailing from the matured markets. Same barriers may be applicable for India. In addition, demand uncertainty, lack of information sharing, inadequate logistical infrastructure and inefficient financial flows will be considered as the challenges on order fulfilment, which in turn limits the e-tailing business. Establishing e-tailing requires firms to invest, generate technical capabilities and build business partnerships with service firms. E-tailing reduces the logistics operation by introducing the optimised transportation methods with effective truck or container utilisation through packaging solutions. Hence, it influences the green environment.

In terms of infrastructure needs, it is essential for automotive firms to adapt the financial investment towards systems, appointing skilled resources and building technical partnership with e-tailing service provider. India is the leading tractor manufacturer and 2nd largest bus and two-wheeler manufacturer with quality driving force. Indian professionals are highly information technology proficient. Hence, adapting and expanding the e-tailing business across Indian automotive sector is highly feasible.

In line with the global automotive sector, post COVID-19, it is expected that Indian automotive industry business practices will appear to be significantly different from the past. Automotive players such as manufacturers, OEMs, dealers, distributors and the entire supply chain will need to make the effective business decisions in terms of e-tailing preparedness right now to stay competitive. Effective business-to-business (B2B) promising



relationship dimensions such as trust, commitment, communication and collaboration are key among the Indian automotive players to allow the distribution across e-tailing eco-system in an effective manner to build the sustainability.

Current online shopping and e-tailing trend demand a high number of data analysts for the future to have a sustainable growth. Industry engagement in each stage of the research will be a great strength to check the effectiveness of our proposed framework.

## 8. Conclusions and future research

The COVID-19 situation affected the whole landscape of retailing in India and around the world. However, some businesses have used the pandemic-related difficulties into opportunities. E-tailing is one of the ways that helped people in India to continue shopping their essential products and choosing their luxury products without making any physical visits during the lockdown. Overall, during the COVID-19 pandemic outbreak, use of public transport for people movement is withdrawn, but e-tailing-related logistics and distribution have been ramping up heavily with social distancing. On this premise, our research is exploring how local businesses, suppliers and logistics providers can work collaboratively sharing their resources such as warehousing, transportation and delivery to achieve local norms of health concern with social distancing and also maintain environmental sustainability having win-win situation for all stakeholders involved. Methodologically, we used secondary data to make observational study, followed by two company case studies and a few interviews to understand the current situation. Based on our research, we suggest a simple collaborative e-tailing model combining all supply chain players to reduce people's movement, timely delivery and enhanced service to meet customers demand during the lockdown period. Finally, the proposed model has been discussed with the case companies and it hoped to support business planning for online services.

This offer of new e-tailing model will help the businesses achieve sustainability using the available resources, and hence, there is no need for any extra investment. The proposed e-tailing model will have a great social impact in terms of maintaining green environment within the local community on the verge of increasing online purchases. On successful implementation of this model, future businesses can assure of less carbon footprint in their operations. The proposed "e-tailing model for sustainability" will serve as a basic framework for new businesses who intend to adopt the sustainability operations. The same model will serve as a structured tool kit for the businesses that are already practicing sustainability in their daily operations but having interest to outshine the sustainability objectives.

Continuation of this research will create a momentum of sustainability in the context of e-tailing. More cases from Indian context can be studied to develop general e-tailing models for Urban India and also for rural India.

## References

- Agarwala, A. and Yadav, V.K. (2015), "Impact of technology in E-retailing operations: a consumer perspective", *Procedia - Social and Behavioral Sciences*, Vol. 189, pp. 252-258, doi: [10.1016/j.sbspro.2015.03.220](https://doi.org/10.1016/j.sbspro.2015.03.220).
- Anuj, K., Fayaz, F. and Kapoor, N. (2018), "Impact of E-commerce in Indian economy", *IOSR Journal of Business and Management*, Vol. 20 No. 5, pp. 59-71.
- Bianchi, C., Winch, G. and Cosenz, F. (2018), "Experimenting lean dynamic performance management systems design in SMEs", *International Journal of Productivity and Performance Management*, Vol. 67 No. 7, pp. 1234-1251, doi: [10.1108/ijppm-10-2017-0266](https://doi.org/10.1108/ijppm-10-2017-0266).
- Bisen, A., Singh, P. and Anand, A. (2013), "E-tailing in India: unlocking the potential", A White-Paper, Published By technopak, available at: [http://www.technopak.com/files/E-tailing\\_in\\_India.pdf](http://www.technopak.com/files/E-tailing_in_India.pdf) (accessed 27 June 2020).

- Cosenz, F., Qorbani, D., Yamaguchi, Y. (2021), “An exploration of digital ride-hailing multisided platforms’ market dynamics: empirical evidence from the Uber case study”, *International Journal of Productivity and Performance Management*, Vol. 70 No. 4, 2021, pp. 725-742, doi: [10.1108/ijppm-10-2019-0475](https://doi.org/10.1108/ijppm-10-2019-0475).
- Global Automotive E-Tailing Industry (2020), available at: [https://www.reportlinker.com/p05797978/Global-Automotive-E-tailing-Industry.html?utm\\_source=GNW](https://www.reportlinker.com/p05797978/Global-Automotive-E-tailing-Industry.html?utm_source=GNW) (accessed 18 June 2020).
- Joshi, D. (2020), “Walmart’s acquisition of flipkart: a paradigm shift in retail management strategy—current and future implications for various stakeholders”, in *Paradigm Shift in Management Philosophy*, Chapter 4, pp. 65-86, doi: [10.1007/978-3-030-29710-7\\_4](https://doi.org/10.1007/978-3-030-29710-7_4), (accessed 30 June 2020).
- Kalia, P. (2015), “Top e-retailers of India: business model and components”, *International Journal of Electronic Marketing and Retailing*, Vol. 6 No. 4, pp. 277-298, doi: [10.1504/ijemr.2015.073450](https://doi.org/10.1504/ijemr.2015.073450).
- Khan, A. and Syed, A.A. (2018), “Determinants of online consumer behaviour towards e-tailing in India”, *International Journal of Enterprise Network Management*, Vol. 9 Nos 3/4, pp. 455-480, doi: [10.1504/ijenm.2018.10015864](https://doi.org/10.1504/ijenm.2018.10015864).
- Pandey, M. (2019), “A study of critical sustainability indicators for e-retailers”, *International Journal of Services Sciences*, Vol. 7 No. 1, pp. 25-43, doi: [10.1504/ijssci.2019.106395](https://doi.org/10.1504/ijssci.2019.106395).
- Ramanathan, U., Bentley, Y. and Pang, G. (2014), “The role of collaboration in the UK green supply chains: an exploratory study of the perspectives of suppliers, logistics and retailers”, *Journal of Cleaner Production*, Vol. 70, pp. 231-241, doi: [10.1016/j.jclepro.2014.02.026](https://doi.org/10.1016/j.jclepro.2014.02.026).
- Ramanathan, U., Subramanian, N. and Parrott, G. (2017), “Role of social media in retail network operations and marketing to enhance customer satisfaction”, *International Journal of Operations and Production Management*, Vol. 37 No. 1, pp. 105-123, doi: [10.1108/ijopm-03-2015-0153](https://doi.org/10.1108/ijopm-03-2015-0153).
- Sinha, P.K., Gokhale, S. and Rawal, S. (2015), “Online retailing paired with kirana—a formidable combination for emerging markets”, *Customer Need and Solution*, Vol. 2 No. 4, pp. 317-324, doi: [10.1007/s40547-015-0057-9](https://doi.org/10.1007/s40547-015-0057-9).
- Wang, F. and Head, M. (2007), “How can the web help build customer relationships? An empirical study on e-tailing”, *Information and Management*, Vol. 44 No. 2, pp. 115-129, doi: [10.1016/j.im.2006.10.008](https://doi.org/10.1016/j.im.2006.10.008).

## Annexure

### Interview protocol: Assuming that the company is having both online and physical presence (before and after COVID-19)

#### Section 1 (factors behind e-tailing and sustainability) :

- (1) **Why** do you involve your business in e-tailing? Do you think there is **more demand**?
- (2) **What are barriers and drivers?**
- (3) **What extra activities** are involved in e-tailing in comparison to your physical store?
- (4) Do you think those activities affect/**impact the green environment** (sustainability) in any way? (If yes, how)? And for what (logistics, warehouse, packaging, routing etc)

#### Section 2 (infrastructure requirements):

- (1) **What financial, skill and technology investment** are required for e-tailing?
- (2) Do you **have infrastructure** for e-tailing and how do you manage?

*Section 3 (market competition):*

- (1) How do you compete with your market rivals (collaborate/isolation/part-integration)
- (2) Do you think you can survive competition with e-tailing through (let them explain)
  - Logistics collaboration
  - Warehouse sharing
  - IT sharing
  - Collaborating with local stores
  - Other methods to quick delivery and reduce last-mile delivery

*Section 4 (e-tailing model for sustainability):*

- (1) What future plan do you have to enrich activities in e-tailing
- (2) How will you enhance green sustainability?
- (3) What collaboration will you have with other businesses
- (4) What is your current business model for physical store and e-tailing
- (5) What will be your future business model for physical store and e-tailing

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