# **EMPOWERING MSMEs IN E-COMMERCE PLATFORM: CHALLENGES AND OPPORTUNITIES**

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### Abstract

The integration of Micro, Small, and Medium Enterprises (MSMEs) into e-commerce platforms presents a significant avenue for growth, accompanied by intricate challenges. These platforms extend the promise of broader market reach, an expanded customer base, and augmented sales, facilitating cross-border trade and streamlined business scalability for MSMEs. However, navigating this landscape is not without its hurdles, encompassing the establishment of a digital presence, effective management of e-commerce logistics, cybersecurity considerations, and the financial implications of digital marketing. This paper delves into the impact of e-commerce on MSMEs in India, focusing on prominent online shopping websites. It examines the opportunities and challenges confronted by MSMEs on ecommerce platforms, drawing on qualitative assessments of the issues faced by both MSME sellers and their customers. The study seeks to shed light on substantial opportunities for the Indian MSME sector through e-commerce adoption while proposing practical ideas to address the challenges inherent in conducting business through these platforms. To tackle the challenges faced by MSMEs, modern financial solutions prove to be pivotal. Innovations such as peer-to-peer lending, supply chain finance, and digital payment systems play a crucial role in bridging the funding gap for MSMEs, providing tailored financial products that align with their specific needs. The infusion of big data analytics, artificial intelligence, and machine learning in finance empowers MSMEs to make informed decisions and adeptly manage risks. Furthermore, blockchain technology enhances transaction transparency and fortifies cybersecurity in the e-commerce realm.

Keywords: E-commerce, Financial Solutions, Digital Marketing, Market Opportunities, Market Challenges, Supply Chain.

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#### Introduction:

The emergence of E-commerce is briskly changing the global business scenario. Though the E-commerce phenomenon is more than 25 years old, it has become significantly popular in the last few years owing to the increase in internet user base and favorable market conditions. Online retail has become a common practice everywhere. India being one of the fastest growing retail E-commerce markets, has an opportunity not only to grow exponentially on the front of export-import but also to evolve its traditional crafts & skills side by side creating new fashion and marking its own signature on the global platform (Goel, 2023). The market value of E-commerce retail in India has reached to approximately 60 billion USD in the year 2023 registering growth of 30% from 50 billion USD in the year 2018 (Minhas, 2023). According to experts' projections, this figure is expected to reach 200 billion USD by the year 2027. However, despite all the boom and impressive projected growth rate, the retail Ecommerce market has just scratched the surface of total retail sales in India. ECDB Analysis shows that if only retail of physical goods is taken into consideration, the online share accounts only for 3.6% of the total Indian retail market (Statista Market Insights, 2023). ECDB projects that by the end of 2027, this share can reach up to 4.9% with an average increase of 8.0%.

This gap brings an unequivocal opportunity for Indian MSMEs, both for existing as well as potential start up export units, to capture a portion of the rapidly expanding E-commerce marketplace giants such as Flipkart, Amazon, Myntra, Paytm Mall etc. The Indian MSME sector is the backbone of the national economic structure and has unremittingly acted as the bulwark for the Indian economy, providing it resilience to ward off global economic shocks and adversities. With around 63.4 million units throughout the geographical expanse of the country, MSMEs contribute around 6.11% of the manufacturing GDP and 24.63% of the GDP from service activities as well as 33.4% of India's manufacturing output (Tambe and Jain, 2023). They have been able to provide employment to around 120 million persons and contribute around 45% of the overall exports from India (Deshpande, 2023). The sector has consistently maintained a growth rate of over 10%. About 51% of the MSMEs are based out of rural areas, which indicates the deployment of significant rural workforce in the MSME sector and is an exhibit to the importance of these enterprises in promoting sustainable and inclusive development as well as generating large scale employment, especially in the rural

areas (Ministry of MSMEs, 2023). However, marketing and selling of the goods produced by such sector needs to be addressed in the light of recent technological development and paradigm shift in the global business scenario. In the era of globalization & liberalization MSMEs are facing cut-throat competition at local, national and international level. To sustain in long run in this highly competitive market they need to implement new changes and technologies and 'E-Commerce' is one of them. E-commerce helps MSMEs to mark presence in virtual marketplace which not only provides a platform beyond the geographical and regional barriers but also to innovate and evolve globally (Asian Development Bank & WTO 2021).

MSMEs in India have understood the power of E-commerce and that is why they are geared up to grow in leaps and bounds. Policymakers have also recognised the challenges MSMEs face, and that's why the policies such as Skill India, Make in India, Digital India, Vocal for Local and Start-up India have MSMEs as their primary focus, so that these entities can tap into the immense power and potential of the internet. Similarly, all the leading E-commerce platforms such as Amazon, Flipkart, Myntra, etc. are focused on tying hands with MSMEs and listing them on their respective platforms in order to promote their global reach and enhance the export competitiveness of 'Made in India' products. Nowadays these online shopping applications have also dedicated a segment for such causes for example, Amazon Saheli for women led SHG's products, Amazon Karigar for Handloom and Handicrafts, Flipkart Samarth for Indian traditional crafts and Myntra India Bazar for popularising Indian textile and fashion apparels globally. Amazon has also started a separate section for local shops and small & medium businesses on its platform. In the present paper the reviews and feedback of customers for products offered by MSMEs over such platforms have been studied to pinpoint the common challenges for MSMEs in the path of running business online.

### **Literature Review:**

There have been a series of research being carried on the growth of e-commerce and its impact on MSMEs in light of the challenges and opportunities faced by them on such platforms. The digital landscape in India has the potential to significantly benefit MSMEs, but it is crucial to address the complex and diverse nature of this segment (Buteau, 2021). E-commerce platforms can enhance business agility and competitiveness for MSMEs, as seen

in Indonesia (Tisyani & Sushandoyo, 2023). However, there are challenges, including the need for comprehensive market information and government support for effective access to destination markets (Tripathy & Kumar, 2019). Government, businesses, charities, and individuals need to work together to lower the barriers to online engagement (Subala, n.d.), an example of which can be providing some relaxation for MSMEs on the part of e-commerce sites (Janjanam & Subbalakshmi, n.d.). The most common challenges faced by MSMEs on e-commerce platforms include lack of adequate data, logistics infrastructure, trust, regulations, cross-border customs clearance, and talent (Shanghai Academy of Social Sciences & UNIDO, 2018). A study carried out by an e-commerce platform concluded that in an environment where needs and preferences tend to change rapidly, establishing the brand image is possible only through value proposition and product differentiation (KPMG & Snapdeal, 2015). MSMEs need to spend time and effort to take advantage of the power and potential of e-commerce platforms.

### I. Objectives of the Study:

Considering the available literature, it has been found that the majority of the studies are focused on forecasting the opportunities and challenges to MSMEs on the basis of macroeconomic factors. However, the e-commerce platforms facilitate the business to get a first-hand data in the form of feedback from customers to analyze their challenges as well as find a way to convert them into opportunities. Taking such feedback into consideration, the present paper attempts to:

- i. Identify the factors providing opportunities for MSMEs on E-commerce platforms.
- **ii.** Identify the factors imposing challenges for MSMEs on E-commerce platforms.

### **II. Research Methodology:**

#### • Sample and Data Collection:

As the paper attempts to find out the challenges in front of MSMEs on E-commerce sites, it is apt to consider the feedback and complaints of end users on these sites for the products of MSMEs. For this purpose, 324 reviews have been taken as sample. Out of several feedback, reviews mentioning pricing, packaging, size, quality, utility, delivery or transport of the products were selected for the study. Reviews mentioning the availability of similar product at somewhere else, advertisement, visibility on different sites, brand image and any other probable factor affecting the e-business of MSMEs, were also included in the study.

#### • Source of Data:

The reviews have been taken from mostly used E-commerce platforms, which are Amazon, Flipkart and Myntra. Out of total 324 reviews 162 reviews were taken from Amazon, 71 were from Flipkart and 91 were from Myntra.

### **III.** Analysis of Data:

Even though efforts have been made to collect meaningful data from the customers' feedback, the paper has more importantly carried out a detailed qualitative assessment of these reviews to study and identify the factors affecting the business of MSMEs on such online shopping websites. The feedback from customers were found to be majorly pointing at the issues related to the prices or discount offers, problems in packaging, size fit or quality variation from expectation, use of product to serve the purpose of buying and problems with delivery logistics. There were also some reviews about availability of better product in local market, better pricing, visibility of product or brand on different platforms, after sale-service by sellers, so on and so forth. Keeping these in mind, the collected data have been classified into five broad categories relating to- Pricing, Packaging, Size & Quality, Utility and Delivery. All other factors discussed have also been considered while drawing meaningful conclusions.

The Table given below for perusal summarises the major problems faced by customers of MSMEs' products from online shopping platforms.

Shopping Apps	Pricing	Packaging	Size & Quality	Utility (Expectation)	Delivery & Transport	Total
Amazon	44	34	34	22	54	162
Flipkart	19	16	17	19	21	71
Myntra	22	14	13	9	13	91
Total	85	64	64	50	88	324

Table: Number of Reviews Related to Problems of Customers

Source: Compiled from selected reviews from Amazon, Flipkart and Myntra

The pie-chart given below exhibits these major problems in percentage, providing a bird-eye view to understand the important factors which are the major challenges to tackle, and which might become an opportunity for MSMEs' on E-commerce platforms.



Source: Compiled from Collected Data

As evident from the above pie-chart, number of customers have posted their responses relating to the issues they have experienced from purchasing of any MSME's product. Major concerns were related to the pricing of the product. Around 26% customers opined that the product they bought, were overpriced or did not worth of the money they spent. Many reviews were about the availability of discount from another seller on same or other platforms, which creates a doubt in the mindset before ordering. This shows the lack of uniform pricing for similar type of products on shopping Apps. The customers also opined that the similar products are being sold in offline market at lower prices. 20% of the reviews were found to be complaining about the bad packaging of product which many of the times became the reason for loss of or returning the item purchased. Size and quality of the product were also found to be a major concern of customers, wherein 20% responses were about size fit or colour difference issues in the case of textiles and fashion apparels; quality of product in terms of material used, sturdiness, colour, difference in actual size from that of posted on sites, finishing, carving, joints and likewise in case of products made of jute, bamboo, woods, terracotta, ceramic, brass etc. The responses around 15% were found to be related with the purpose of buying the product but the expectations were not met. In addition, big chunk of problems was found at the end of delivery logistic and transport of the product. 27%

customers had faced issues in delivery and return of the product either related to the mishandling of delicate product in transportation or heavy delivery charges by sellers. Issues referring to non-returning or exchange of products were also mentioned in these reviews many times.

The stacked bar-diagram given below exhibits these major problems in category-wise for each online shopping platform so as to identify the factors where MSMEs registered on such platform need more to focus.



Source: Compiled from Collected Data

After perusal of the bar-diagram, delivery and transport related issue found to be crucial factor for MSMEs linked with Amazon and Flipkart, as 30-33 percent of responses complaining about bad delivery came from these two apps. The obvious reason behind this might be that these two apps provide space to all kinds of MSMEs product, wherein delicate and handmade items are being sold. Whereas Myntra provides space generally for textile and fashion apparel category wherein problems were found mostly related to late delivery and problems in return or exchange of products. Another important but common issue is the pricing of products which is concentrated around 24-27 percent showing that due to stiff competition, just like MNCs pricing has become a challenging factor for MSMEs too. Size and quality issue is also a factor for Amazon and Flipkart registered MSMEs because of the reason discussed earlier. However, it is noticeable that MSMEs registered on Flipkart are facing more complaints for the usage of their product as compared to Amazon. This evinces

that the specification of product along with clear images are not being posted by many Flipkart registered MSMEs as compared to those working with Amazon.

### **IV. Findings of the Study:**

In the light of the analysis of reviews and feedback from customers on aforesaid shopping apps, the findings can be summarised as factors posing opportunities and challenges for MSMEs on E- commerce platforms as under.

#### A. Prospects for MSMEs in the Realm of E-Commerce Platforms:

After delving into the feedback of customers on online shopping apps, the important factors which are proving to be opportunities for MSMEs to grow better, can be brought out as below:

- 1. Global Reach: E-commerce platforms offer businesses a virtual space to showcase their products or services globally, allowing them to reach beyond local markets. Businesses can either create their own websites or join existing e-commerce sites with international presence, benefiting from inbound traffic and logistical support at a low initial cost. This is particularly significant for micro enterprises, often owned and managed by individuals with limited education. E-commerce facilitates global exposure for these enterprises, enabling them to learn essential business tactics and test operational aspects like purchase, shipment, and return management. Additionally, it helps MSMEs establish product-market suitability, gather real-time information on customer preferences, and build a client base.
- 2. Brand Image: The MSMEs conducting business through online sites are capable of making their brand image sooner as compared to those who do not join such platforms due to wider exposure of products. Once the product gets favourable response from the customers, the reviews prove helpful for prospective customers too. Thus, good reviews publicize the product easily. As was found in the study, the detailed responses from customers were marked as helpful by other prospective buyers too. Moreover, these sites have provided a platform for customers and sellers to seek answers to their queries to make better judgments.
- **3. Strong Visibility:** E-commerce provides better visibility to MSMEs' products due to its organised technological support. It solves the problem of information asymmetry in offline shopping through detailed product catalogue, suggestions for similar items, product

reviews, articles, buying guides and user tutorials, which enormously benefit shoppers by helping them to choose the right products for their needs.

- 4. Cost Effective: In response to heightened competition, E-commerce players are investing significantly in both digital and traditional media to enhance site traffic, acquire customers, build relationships, and increase sales. Digital channels, particularly social media, offer a cost-effective and efficient means of advertising and communication with target audiences. E-commerce platforms often leverage social media links to create awareness through partners, reducing the need for MSMEs to spend on trade shows, offline advertising, and traditional marketing. This approach also helps them avoid the additional costs associated with establishing offline stores in multiple locations.
- **5.** Use Data Analytics to Understand, Engage and Retain Customers: E-commerce websites collect and analyze extensive customer data, encompassing product details, prices, page engagement, order history, and various preferences such as delivery time and location. This valuable data serves as a resource for MSMEs, especially those lacking technical resources, enabling them to respond quickly to customer demands and enhance after-sales service. Positive reviews regarding grievance redressal contribute to the growth of MSMEs by fostering satisfaction among customers worldwide, ultimately establishing a loyal consumer base.

#### **B.** Obstacles Faced by MSMEs on E-Commerce Platforms:

After analysing the reviews of customers, following common challenges were found for MSMEs which they need to address for running a viable business.

1. Pricing: It is the predominant challenge for any business to price their product prudently especially amid stiff competition. The study revealed that 26% of the feedbacks from customers relating to goods of small traders and artisans were about the pricing of products. It is a challenge for these sellers to offer such price which is worth the money customers pay for it as well as sufficient for the producer also. Offering fair discount and better deal to the customers becomes huge challenge sometimes, especially in case of handmade or skilled items as there are various options are also available from MNCs and big brands products with huge offers and discounts. This direct face-off with giants poses problem in convincing the customers to buy the costlier one, when marketing is done only through the pictures and details posted on the site and similar items and comparisons are available to distract customers easily.

- 2. Packaging and Transport: Another major problem which has been largely pointed out in the reviews are the rough packaging and carelessness in handling the parcels in the logistic of E-commerce sites. Around 20% of the reviews found to be complaining of used, faded or different products received which exhibits the carelessness in packaging of products. Many times, fragile items are received damaged or products received, either due to inferior packaging or mishandling while delivery. There were 27% reviews about such delivery issues. These feedbacks also comprised of complains regarding no exchange policy, high delivery charges and no money return for damaged product received. This evinces that packing the products with utmost care and handling it all the way to customer's doorstep is an important issue for most of the small and micro enterprises.
- **3.** Size and Quality of Products: Sometimes information asymmetry exists between the buyers and sellers in E-commerce activities. There is still lack of effective information disclosure and display mechanisms on the sites leading to lack of trust among consumers, restricting MSMEs' E-commerce activities. There are 20% reviews which say that size was not clear from the pictures uploaded, or quality was different from that of seen in the pictures. Moreover, certain suppliers/distributors introduce counterfeit products in the supply chain alongside genuine products, increasing the frequency of transactions involving fake products. Since the onus of ensuring product quality, authenticity and packaging rests on the sellers, the E-commerce companies are often unable to proactively detect counterfeits or inferior/faulty products that may be sold to customers via their networks. Thus, in this regard, the MSMEs are facing great challenge to sustain in the market.
- 4. Serving the Expectation: Fair pricing, packaging and delivery of the product are not sufficient to sustain and retain customers in global market. The enterprises ultimately need satisfied customers for success of the venture, be it a large company or small enterprise. The product should ultimately prove its utility in the hand of ultimate user. Sometimes even handmade or skilled craft items which are made with utmost care and fine quality, fail to serve the purpose of user. For e.g. a handmade bag with superior quality of mirror work might look extremely beautiful but would be of no use if it is very bulky to carry or has insufficient space. This issue may seem negligible, but there are number of buyers who felt disappointment after using the product and some even have returned it. 15% of the reviews were found to be pointing at this issue. Here, the challenge for producers of these types of products is not only to portray their product in a way that buyer understand

the actual utility of such things, but also to understand the need of customers and modify their line of production accordingly.

- 5. Visibility on Sites: Only joining the E-commerce platform is not sufficient for MSMEs. Sharing the same virtual market space with big brand giants brings stiff competition for such small enterprises. Where there are companies who can offer huge discount and take advantage of economies of scale, these MSMEs must survive and negotiate a good deal to stand out and make an image for themselves. The system of E-commerce sites always shows the other available options and compared price for similar types of products. Moreover, the frequency of visibility of products depends on the items searched and bought. So, big brand's products are frequently visible as compared to the MSME's product unless the product is unique for its craft or skills involved. Frequently visible products are obviously sold more as there is say "out of sight, out of mind".
- 6. Bad Reviews Affect Prospective Customers: Reviews and feedbacks are double-edged weapon in publicising the products. Those who are willing to buy the product go through the reviews posted on the site and get affected by it easily. If there are reviews which are misleading or confusing, then people tend to search for other options. Although reviews depend on the products or services of the sellers, but it is not possible to get favourable reviews from everyone. And bad reviews affect more than the good one. The real challenge here, is to take such reviews positively by the enterprises and put serious efforts to address the problems faced by customers.

# VII. Strategies to Enhance the Performance of MSMEs on E-commerce Platforms:

The E-commerce platform has become a business reality that cannot be ignored. Those who remain adamant to it are going to face survival issues in the upcoming days as they will have to compete with not only the MNCs but also with similar types of businesses which have chosen to adapt to E-commerce. Following are the suggestions for MSMEs to tackle the challenges faced in running business online.

• The sellers must go through the reviews and complaints posted on sites and take necessary measures to improve their products and services. Considering the valid responses of customers would lead them toward betterment and sustainability.

- The analysis of reviews suggests that MSMEs should also keep in mind the pricing of competitors to offer products at a convincing rate. This can be done by producing a variety of products in similar line, pricing low to high. This would provide scope for better discount offers and cater to the needs of all types of customers while balancing the cost of production involved.
- Analysis also suggests MSMEs to focus on attentive packaging and transport of their products as well, besides the quality of the products. Use of good material for final packaging and due caution is necessary for transportation of product. This may cost some extra bucks but results into minimisation of damage and return of items after sale.
- Although the uniqueness of MSMEs' products makes them special and such unique products should be advertised properly to make a brand image; understanding the tastes and preferences of people from other locations is equally important and MSMEs should also make products to create and cater to the demand of different varieties and prices so that they can compete and stand out between competitors.

The above mentioned challenges and suggestions to tackle them not only require operational efficiency but also better cash flow and working capital. Access to low-cost finance for MSMEs, easy payment settlement, use of data processing in business etc. are some key areas where adoption of Modern Financial Solutions can empower MSMEs to overcome challenges and capitalize on opportunities. Precisely, existing literature suggests following fintech options as a crucial weapon to overcome challenges on ecommerce platforms for MSMEs:

• Peer-to-Peer Lending: Peer-to-peer lending (P2P) has emerged as a viable financing alternative for MSMEs. P2P lending enables individuals to obtain loans directly from other individuals, cutting out the financial institution as the middleman. The potential of P2P lending in addressing the limited access to finance for MSMEs is highlighted by Rusadi & Benuf (2020) and Linawati et al. (2020). Despite the popularity of traditional lending practices for MSMEs, there are substantial potential of digital lending in India's MSME sector (Damodaran et al., 2019). The complexity of finances, lengthy documentation, processes etc. make it difficult for SMEs to easily avail loans which affects their operation. These P2P lending platforms enable credit for SMEs and contribute to mitigating financial constraints.

- Supply Chain Finance: Supply chain finance is a solution to cash flow and working capital challenges for MSMEs. The adoption of Supply Chain Finance (SCF) by the Indian MSME sector can potentially enhance efficiency for MSMEs (Ambadapudi, 2021). Niti et. al. (2018) have opined that the Trade Receivables Discounting System (TReDS) in India, aims to alleviate liquidity constraints for MSMEs caused by delayed payments and advocating for the establishment of global exchanges for SCF in India. However, financial and information technology challenges before MSMEs are prominent hurdles in the way of adoption of SCF (Alora & Barua, 2019).
- **Digital Payment Systems and Financial Inclusion:** Digital payment system such as UPI, Micro ATM, Mobile Banking, PoS, NEFT, RTGS etc. is undeniable factor for the growth and financial inclusion of MSMEs. But, even today only a small percentage of business owners know that Fintech instruments can be a source of financing for their companies (Sachdev and Singh, 2023). To popularize and increase awareness about fintech services there is a need to develop an ecosystem that promotes collaboration of banks and finTech firms (Raj and Upadhyay, 2020). This can reduce major barriers to acceptance of digital payment such as lack of trust for online payments, computer illiteracy.
- Data-Driven Decision-Making: The integration of big data analytics (BDA), artificial intelligence (AI), and machine learning enables data-driven decision-making for Micro, Small, and Medium Enterprises (MSMEs). Dahiya et al. (2021) have emphasized that organizations leveraging BDA and AI gain a competitive advantage. Data-based validation, Technical Know-how, and Industrial Engineering Knowledge Base are some of the critical success factors for MSMEs (Bhat et al., 2021). The utilization of BDA, AI, and machine learning stands as a transformative tool for MSMEs, enhancing competitiveness and facilitating strategic decision-making.
- Blockchain Technology for Trust and Security: Blockchain technology enhances transaction transparency, trust, and cybersecurity for MSMEs on e-commerce platforms. The real-time exchange of information, a pivotal aspect highlighted by Sahoo et al. (2023), ensures secure and swift access to data across supply chains, especially in the context of Supply Chain Finance (SCF) for Indian MSMEs. BCT in supply chain, particularly in tracing and identifying counterfeit products (Tian, 2017). Blockchain technology can offer solutions to security challenges, cost reduction, improved productivity, enhanced supply chain management, and access to new

financial infrastructure (Bhardwaj et al., 2021 and Mahjoub et al., 2022). Rakshit et al. (2022) have highlighted the untapped potential of Amazon's Blockchain network for global operations, emphasizing the need for strategic processes to enhance integrated business efficiency for SMEs.

# VIII. Conclusion:

E-commerce plays a pivotal role in various aspects, encompassing advertising, customer support services, marketing, and, notably, financial services. From the perspective of sellers, these platforms facilitate improved visibility and streamlined logistics, while consumers benefit from convenient services such as bill payment and prompt feedback. Despite the prevalent lack of online skills among individuals and organizations, there is a noticeable commitment to embracing digital platforms and the associated financial services. Recognizing genuine opportunities and challenges in this evolving landscape is crucial. While it may be impractical for enterprises to comprehensively address every customer concern, the key lies in pinpointing and addressing the most prevalent challenges specific to a business. This focused approach enables businesses, particularly Micro, Small, and Medium Enterprises (MSMEs), to navigate the complexities of the digital realm effectively, leveraging financial services to enhance their operations and capitalize on the growing ecommerce landscape in India.

### **References:**

- Goel, P. (2023). A peek into India's evolving e-commerce market. The Economic Times, Retrieved from https://retail.economictimes.indiatimes.com/news/ecommerce/e-tailing/2023-a-peek-into-indias-evolving-e-commerce-market/96684905
- ECDB Analysis. (2023). e-Commerce online share in India. Retrieved from https://www.statista.com/statistics/255359/online-retail-sales-in-india/
- Minhas, A. (2023). Market size of online retail industry in India FY 2019-2023. Retrieved from https://www.statista.com.
- Tambe, N. & Jain, A. (2023). MSME Statistics Of 2023. Forbes Advisor, Retrieved from https://www.forbes.com/advisor/in/business/msme-statistics
- Deshpande, P. P. (2023). Underscoring contribution of MSME sector to economic growth of India, Times of India. Retrieved from https://timesofindia.indiatimes.com/blogs/truth-lies-and-politics/underscoringcontribution-of-msme-sector-to-economic-growth-of-india

- Ministry of Micro, Small and Medium Enterprises. (2023). 2023 Annual Report of Ministry of Micro, Small and Medium Enterprises, GoI. Retrieved from <u>www.msme.gov.in</u>
- Asian Development Bank & World Trade Organization. (2021). Global Value Chain Development Report 2021: Beyond Production, Retrieved from <u>www.wto.org</u>
- Buteau, S. (2021). Roadmap for digital technology to foster India's MSME ecosystem—opportunities and challenges. CSI Transactions on ICT, 9(4), pp 233-244.
- Tisyani, A. S., & Sushandoyo, D. (2023). E-Commerce Platforms as Business Agility Reinforcement To Compete In The Market: Cases Of Indonesian MSME. Journal Integration of Management Studies, 1(1),pp 83-92.
- Tripathy, I. G., & Kumar, P. (2019). Challenges of Indian MSME Exporters: A Review. SEDME (Small Enterprises Development, Management & Extension Journal), 46(3), pp189-195.
- Subala, M. (n.d.). A Study on factors influencing growth of MSME with e-business in Kanniyakumari District, International Journal of Business and Management Invention ISSN (Online): 2319 8028, ISSN (Print): 2319 801X www.ijbmi.org, pp 01-05.
- Janjanam, V. V. P. & Subbalakshmi, A.V.V.S (n. d.). Impact of E-Commerce on MSMEs in India, International Conference on Digital Innovation: Meeting the Business Challenges
- Shanghai Academy of Social Sciences & United Nations Industrial Development Organization. (2018). E-Commerce Development Report of the Small Sized Enterprises of BRICS Countries, Retrieved from <u>www.unido.org</u>
- KPMG & Snapdeal. (2015). Impact of e-commerce on SMEs in India. Retrieved from <u>www.assets.kpmg.com</u>
- Rusadi, F.A., & Benuf, K. (2020). Fintech peer to peer lending as a financing alternative for the development MSMEs in Indonesia.pp.1123-1134,
- Linawati, N., Moeljadi, M., Djumahir, D., & Aisjah, S. (2020). The Role of Peer to Peer Lending in Increasing Funding for Micro, Small, and Medium Enterprises. SHS Web of Conferences.
- Damodaran, S., Kavin, S., Keerthi, K., Madhumathi, J., & Mythili., P. (2019). Empowering MSMEs Through Digital Lending. 2019 International Conference on Digitization (ICD),pp 249-253.
- Ambadapudi, H., & Matai, R. (2021). State of Supply Chain Finance for Micro, Small and Medium Enterprise in India. 2021 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM),pp 243-248.
- Niti, N., & Chatnani, I. (2018). Receivables Management and Supply Chain Finance for Msmes: Analysis of Treds. Academy of Strategic Management Journal,pp 17-25.
- Alora, A., & Barua, M.K. (2019). Barrier analysis of supply chain finance adoption in manufacturing companies. Benchmarking: An International Journal, pp. 231-243.
- Sachdev, N. and Singh, K.N. (2023), "Role of Fintech for MSME and Start-up Ecosystem in Punjab, India", Grima, S., Sood, K. and Özen, E. (Ed.) Contemporary Studies of Risks in Emerging Technology, Part B (Emerald Studies in Finance,

Insurance, and Risk Management), Emerald Publishing Limited, Bingley, pp. 123-145.

- Raj, Brij and Upadhyay, Varun, (2020) "Role of FinTech in Accelerating Financial Inclusion in India". Paper presented at the 3rd International Conference on Economics and Finance organised by the Nepal Rastra Bank at Kathmandu, Nepal during February pp. 28-29.
- Dahiya, R., Le, S.A., Ring, J.K., & Watson, K.J. (2021). Big data analytics and competitive advantage: the strategic role of firm-specific knowledge. Journal of Strategy and Management.pp. 768-778.
- Bhat, S., Gijo, E.V., Rego, A.M. and Bhat, V.S. (2021), "Lean Six Sigma competitiveness for micro, small and medium enterprises (MSME): An action research in the Indian context", The TQM Journal, Vol. 33 No. 2, pp. 379-406.
- Sahoo, P.S.B.B. and Thakur, V. (2023), "Blockchainembedded supply chain finance solutions for Indian MSMEs: a TISM and MICMAC approach", Journal of Business & Industrial Marketing, Vol. 38 No. 11, pp. 2390-2402.
- Tian, F. (2017). A supply chain traceability system for food safety based on HACCP, blockchain & Internet of things, Presented in International conference service system service management(IEEE), pp. 1–6.
- Bhardwaj, A. K., Garg, A., & Gajpal, Y. (2021). Determinants of Blockchain Technology Adoption in Supply Chains by Small and Medium Enterprises (SMEs) in India, Mathematical Problems in Engineering, vol. 2021, Article ID 5537395, pp. 14-25.
- Mahjoub, Y. I., Hassoun, M., & Trentesaux, D. (2022). Blockchain adoption for SMEs: opportunities and challenges, IFAC-Papers Online, Volume 55, Issue 10, pp. 1834-1839, ISSN 2405-8963.
- Rakshit, S., Islam, N., Mondal, S., & Paul, T. (2022). Influence of blockchain technology in SME internationalization: Evidence from high-tech SMEs in India, Technovation, Volume 115, 102518, ISSN 0166-4972.pp.543-576