



MSMEs Go Digital

Leveraging Technology to Sustain during the
Covid-19 Crisis

AUTHORS

Tanu M. Goyal
Prateek Kukreja
Mansi Kedia

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Background

Micro, Small and Medium Enterprises (MSMEs) are a major contributor to India's rapid development.ⁱ In 2019-20, they accounted for 30 per cent of gross domestic product (GDP) and nearly 50 per cent of exports.ⁱⁱ Providing jobs to around 111 million people, MSMEs are the second largest source of employment in the country, after agriculture.ⁱⁱⁱ There are more than 63 million MSMEs in the country and a majority of these are in the micro enterprise category.^{iv}

The government has been proactively pursuing policies to support the growth of MSMEs in India. There are several schemes providing financial assistance, skill development, infrastructure development, marketing assistance, technology upgradation, etc., to MSMEs. A summary of important schemes is shown in Figure 1. In addition, there are special schemes that support the modernisation of MSMEs in the Northeast region.

Figure 1: Selected government support schemes for MSMEs in India

 Credit and Financial Assistance	 Skill Development and Training	 Infrastructure Development	 Marketing Assistance	 Technology Upgradation
<ul style="list-style-type: none">- Prime Minister's Employment Generation Programme- Credit Linked Capital Subsidy Scheme- Credit Guarantee Trust Fund for MSEs- Interest Subvention Scheme for Incremental Credit to MSMEs	<ul style="list-style-type: none">- A Scheme for Promotion of Innovation, Rural Industry and Entrepreneurship (ASPIRE)- Entrepreneurship and Skill Development Programme	<ul style="list-style-type: none">- Scheme of Fund for Regeneration of Traditional Industries (SFURTI)- Scheme for Micro & Small Enterprises Cluster Development Programme	<ul style="list-style-type: none">- Financial Assistance to Khadi Institutions under MPDA	<ul style="list-style-type: none">- Financial Support for Zero Defect and Zero Effect (ZED) Certification- Entrepreneurial and Managerial Development of SMEs through incubators

Source: Compiled from the Website of the Ministry of Micro, Small and Medium Enterprises

The pandemic caused severe disruptions in the MSME sector, which had already been exposed to several shocks over the past few years. Business surveys have shown that almost 95 per cent firms were impacted negatively due to the national lockdown imposed in March 2020. Seventy per cent of the businesses faced disruptions until August 2020; 40 per cent remained affected until February 2021.^v It came on top of two other shocks — demonetisation in November 2016 and the introduction of the goods and services tax (GST) in July 2017 — disproportionately hitting the MSMEs.^{vi} There were output and productivity losses.^{vii} The government announced a series of special measures to support the survival and rehabilitation of these firms including a COVID-19 (henceforth COVID) awareness programme, online skills training, virtual exhibitions, etc.

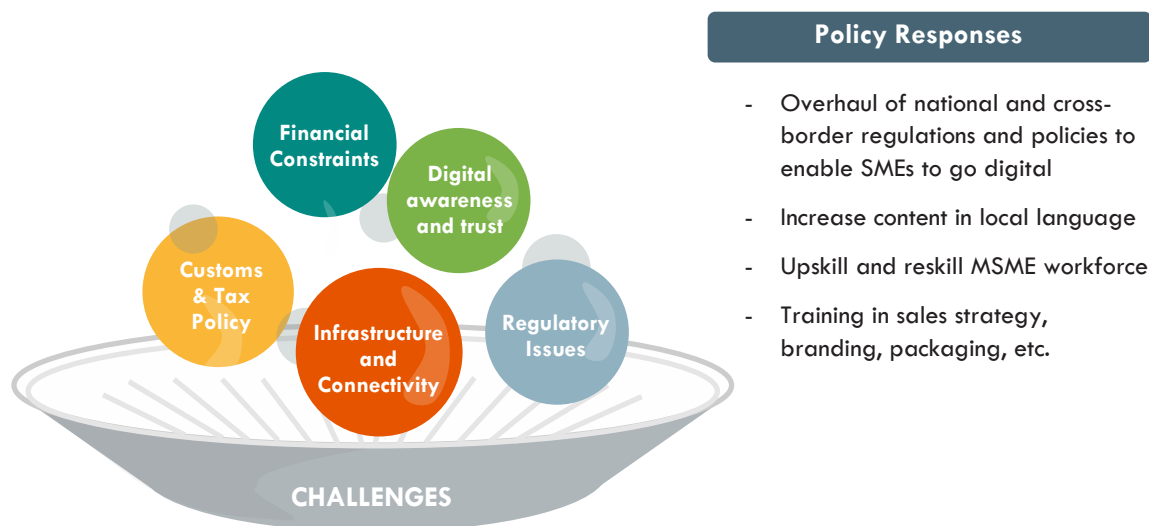
Digitalisation was a key coping mechanism for MSMEs to overcome mobility restrictions during the pandemic. Amidst the turbulence, digitalisation — use of digital technologies to change a business model and provide new revenue and value producing opportunities — has been key to the survival and growth of MSMEs. For example, in 2020-21, nearly 64 per cent MSMEs sold their products through online channels, and many of them registered higher sales than in previous years.^{viii} Digital or e-commerce channels became the mainstream channel for Indian MSMEs to sell their products and services during the pandemic. A majority of the online sales were carried out through e-commerce platforms, though a few firms were selling through their own app or website. In the state of Uttar Pradesh, exports by MSME firms increased by 38 per cent during this period, due to e-commerce access.^{ix}

The rapid adoption of digital technologies by MSMEs took place in the backdrop of accelerating digital connectivity in the country. India is on track to having the largest number of broadband users in the world, highest broadband data consumption per user, highest adoption rate of the latest Internet protocol (ver. 6), unprecedented growth in online payment transactions, the third largest number of unicorns after the United States (US) and China, and several public digital platforms that are the envy of the developing world. The emergence of this digital ecosystem was critical in MSMEs going digital.

COVID situation was also instrumental in the rapid digitalisation of MSMEs, overcoming the challenges that would have otherwise taken longer to address. The Government eMarketplace (GeM), in fact, created a separate category for suppliers of COVID-related goods on its platform and enabled a 'staggered delivery' feature to smoothen purchases.^x In one year, from May 2020 to May 2021, the number of sellers on the platform increased from 3.76 lakhs to 17.86 lakhs, while the number of MSMEs increased from 1 lakh to 6.91 lakhs during the same period.^{xi}

Previous studies largely focused on the challenges faced by MSMEs and the inadequacies of the ecosystem. Studies on the ASEAN region found MSMEs lagging far behind large enterprises, with limited knowledge of digital practices and reluctance to modernise business processes.^{xii} Moreover, poor infrastructure and policy uncertainties discouraged firms from jumping onto the e-commerce bandwagon. However, firms that were using online channels reported higher integration with international markets^{xiii} and were five times more likely to export.^{xiv} Figure 2 presents a summary of challenges hindering e-commerce integration of MSMEs and policy recommendations from survey-based studies conducted before the pandemic.

Figure 2: A snapshot of challenges and responses from cross-country studies on e-commerce integration of MSMEs



Source: Compiled by Authors

Digitalisation has brought many benefits to MSMEs. Besides overcoming existential challenges, MSMEs have increased their customer base, improved operational efficiency, improved risk management, innovated, and reduced manpower requirements with digitalisation. The catalytic effect of the pandemic is likely to push India's e-commerce sector to grow to USD111 billion by 2024 because of increased demand through online shopping.^{xv}

This survey-based report captures the way MSMEs are adapting to e-commerce platforms including the impact of e-commerce on their business volumes, supply chain linkages and employment. The survey was carried out in the period June to August 2021, around the time the devastating Delta-variant of the novel Corona virus hit India. The survey covers **1,537 manufacturing units** in India across six product categories namely sports goods, toys, furniture, readymade garments, handicrafts, and processed and preserved food sectors. Industry clusters were identified across 10 states in India. Within each state, select cities/clusters were covered. **All the units covered in the survey were enterprises that sold through e-commerce platforms.**

For this study, e-commerce platforms include marketplaces that provides an information technology platform over a digital network to facilitate transactions between buyers and sellers. All the firms surveyed under this study are registered as MSMEs under the Udyam Registration.^{xvi} Details on the survey method and the sample frame are provided in Appendix A. The findings from the survey are triangulated with responses from around 20 in-depth interviews carried out with key stakeholders including e-commerce platforms, industry associations, online sellers, academics and government associations.

The next few sections of the report present findings from the survey of 1537 MSMEs (unless specified as 'N') and the in-depth interviews. The first section (Section A) describes the journey of the MSMEs that are integrated with e-commerce platforms, focusing among other things on the shares of offline and online sales, the duration of integration, preferred platforms, and reasons for selling online. The next section (Section B) discusses the impact of e-commerce on the business of MSMEs, focusing on volume of sales, turnover, and profit margins. The third section (Section C) highlights the impact of e-commerce on employment in MSMEs, focusing on gender wise employment distribution, occupation wise employment distribution and skill requirements. Section D presents findings related to the digital ecosystem including Internet connectivity and use of digital payment methods. The next section (Section E) discusses the challenges faced by MSMEs in adapting to e-commerce platforms and Section F makes recommendation for the government and e-commerce platforms. Survey findings are followed by the key conclusions.

Reflections from the Survey

A. MSMEs are going digital in a big way, but this is just the beginning

COVID led to a massive surge in the share of online sales of MSMEs that are integrated with e-commerce platforms. The survey found that in 2020-21, online sales accounted for 27 per cent of total sales compared to 19 per cent in 2019-20 and barely 12 per cent in 2018-19. There was an 80 to 90 per cent increase in seller registration with some large e-commerce companies in the second half of 2020, almost all of which were MSMEs belonging to smaller cities and remote areas. This resonates with the overall increase of 25 per cent in India's e-retail market, as estimated by Bain & Company.^{xvii} Additionally, nearly 70 per cent of the total sales on e-commerce platforms are from MSMEs and the year-on-year growth in MSMEs has been to the tune of 60-70 per cent.

The MSME response in India is no different from that in other Asian economies. An existing study of Asian MSMEs found that COVID spurred the use of digital technology across MSMEs in Asia (Sonobe et al, 2021). More specifically, the study found that around 8 per cent firms with no online sales in 2019 were engaging in online sales at the time of the survey. Firms with moderate share of online sales in 2019 were more willing to increase their share of online sales than firms that did not experience online sales or completely specialised in online sales. A World Bank report highlights that the growing use of e-commerce services by small firms to sell their products may become central to the services-led growth prospects of South Asia. In 2014, only 2.5 per cent of family-run Indian firms with five or more hired workers used online sales channels. By 2020, this share increased to 11 per cent.^{xviii}

Our survey suggests that most MSMEs operated in a hybrid model, using both online and offline channels for sales. Only four out of the 1537 enterprises surveyed were selling 100 per cent of their products online. At the time of the survey, most parts of the country were locked down and managing sales became the biggest challenge for MSMEs. Firms faced a demand squeeze as well as supply bottlenecks. Other studies indicate that SMEs are eight per cent more likely to shut down as compared to large firms when faced with demand-led shocks (Adian et al., 2020).

MSMEs started selling through e-commerce platforms to improve their sales, better market linkages and to scale-up. Stakeholders pointed out that e-commerce benefits both new entrants as well as existing enterprises by giving them access to a wider market and the opportunities to expand. It was also pointed out that MSME participation in trade shows and local exhibitions or connecting with buying agents and export houses were severely curtailed due to the pandemic. Micro sellers are the worst affected. Thus, e-commerce platforms were seen as a medium to overcome these challenges. Other studies suggest that business-to-consumer (B to C) firms were 14 per cent more likely to have unsold inventory during the pandemic compared to business-to-business (B to B) firms (Rathore and Khanna, 2021). Eight out of 10 firms had unsold produce and six in ten dealt with cancellation of orders. **With traditional avenues of market access closing, many firms relied on e-commerce platforms.**

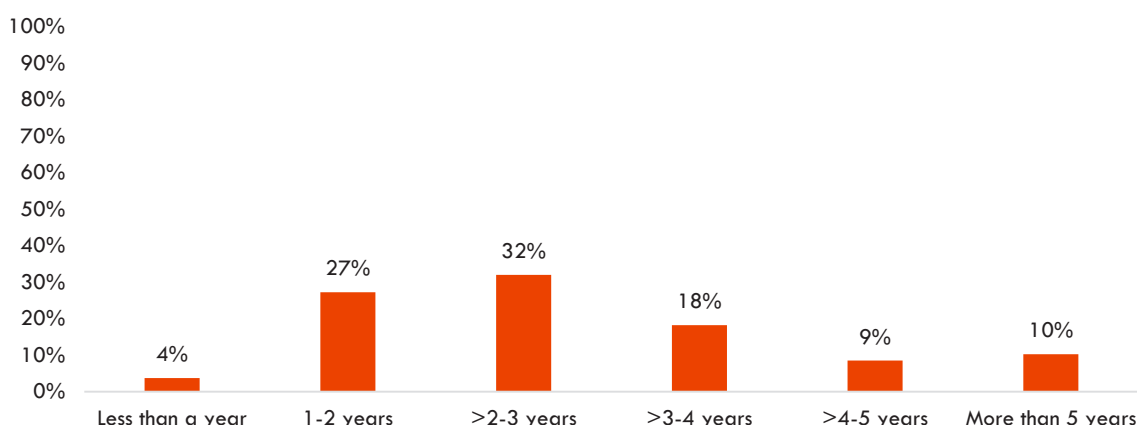
Customer service is a priority for most MSMEs that are selling online. To promote products on e-commerce platforms, MSMEs strive to improve customer service and provide accurate product description. Platforms, as third parties, take product descriptions very seriously and may penalise sellers for inconsistencies. Since MSMEs, especially micro units, cannot afford advertising expenditure, improving their ranking on platforms is considered the most efficient marketing option.

A majority of MSMEs are dependent on e-commerce platforms for online sales as only 12 per cent of the MSMEs surveyed have their own e-store. Out of these, most are medium units (44 per cent) and only two per cent are micro units. For those that use both online channels (e-commerce platforms and own e-store), a majority (53 per cent) would like to sell completely through third party platforms, while some would like to sell through both (27 per cent). Very few would like to switch completely to their own e-store.

During the survey, it was highlighted that several hurdles exist that stop MSMEs from onboarding e-commerce platforms. Since enterprises that are integrated on e-commerce platforms have to compulsorily get GST registration, they cannot avail the advantages under GST since e-commerce marketplaces do not get the advantage of GST threshold exemption (INR4 million). This is particularly disadvantageous for MSMEs. Further, there are various requirements that sellers have to fulfil and the current policies are pro-consumer. This creates a disproportionately high compliance burden on MSMEs. There is also a need for handholding – while digital infrastructure is gradually expanding in the country, there is still reluctance given the low level of awareness and skill gaps. Some of these issues and several others need to be addressed to encourage MSMEs to adopt e-commerce platforms.

Figure 3: A majority of the MSMEs surveyed have only recently integrated with e-commerce platforms (less than 3 years), even though more than 50 per cent of surveyed units have been in operation for more than 10 years

Shares of MSMEs by the Timeframe of Integration with E-commerce Platforms (in percentage)



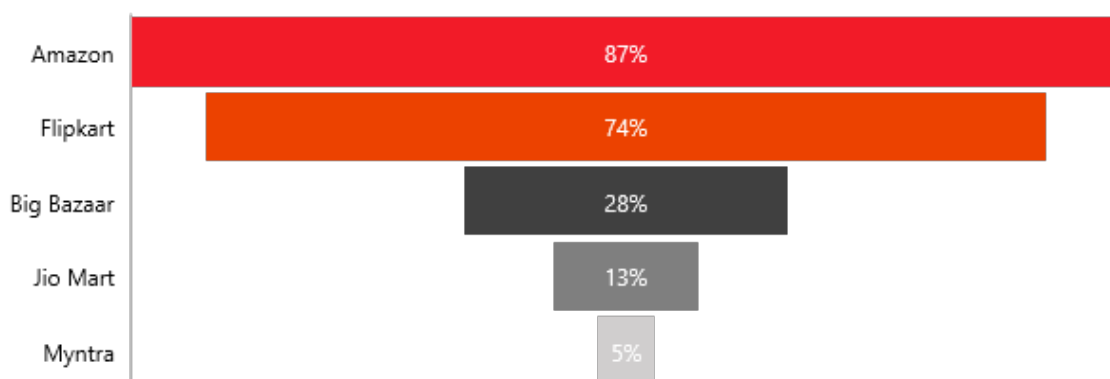
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Medium enterprises have had a relatively longer association with e-commerce market places – almost 60 per cent have been integrated for more than 3 years while 70 per cent of micro enterprises have integrated with market places for less than 3 years.

Figure 4: Amazon is the most preferred platform for selling products, followed by Flipkart. Some large Indian e-commerce platforms such as Big Bazaar and Jio Mart are also gaining popularity.

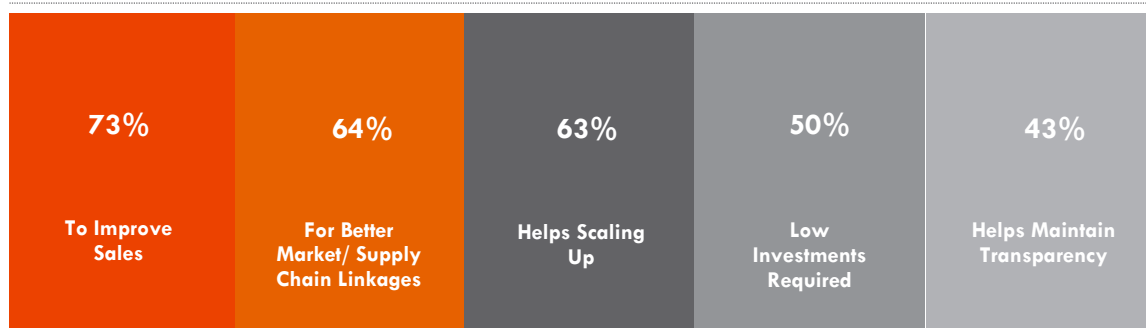
Percentage of MSMEs by E-commerce Platform



In the case of certain categories such as furniture, platforms like Urban Ladder are popular, with more than 30 per cent of the respondents in the category using it.

Figure 5: Most manufacturing units started selling online to improve their sales, improve market linkage and to scale up their business.

Top Reasons for Selling Online as Reported by MSMEs (by percentage of respondents)

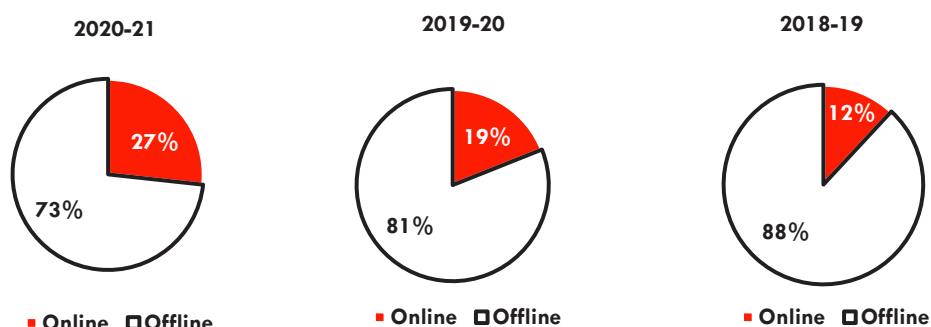


Note: Multiple response possible.

It was highlighted during the survey that manufacturing units prefer to be directly integrated with e-commerce platforms rather than follow a consignment model, because inventories often get stuck with the latter. Unless terms and conditions of payments between the store and the craftsmen match, these contracts become unprofitable.

Figure 6: During the last year, there has been a massive surge in the share of online sale by MSMEs

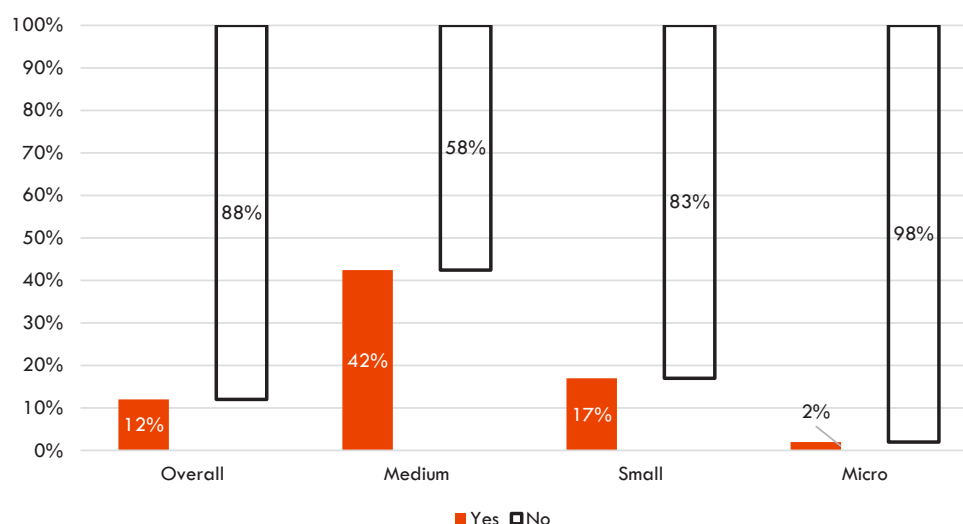
MSME's Share of Online Sales in Total Sales



Around 473 units out of 1462 units (32 per cent) that were operating in 2018-19 did not sell online at all during 2018-19.

Figure 7: A very small percentage of MSMEs have their own website since that requires a larger investment, both in terms of time and cost; thus, most MSMEs are dependent on e-commerce platforms for their online sales.

MSMEs Operating their Own Website to Sell Online by Percentage of Respondents (overall and by size):

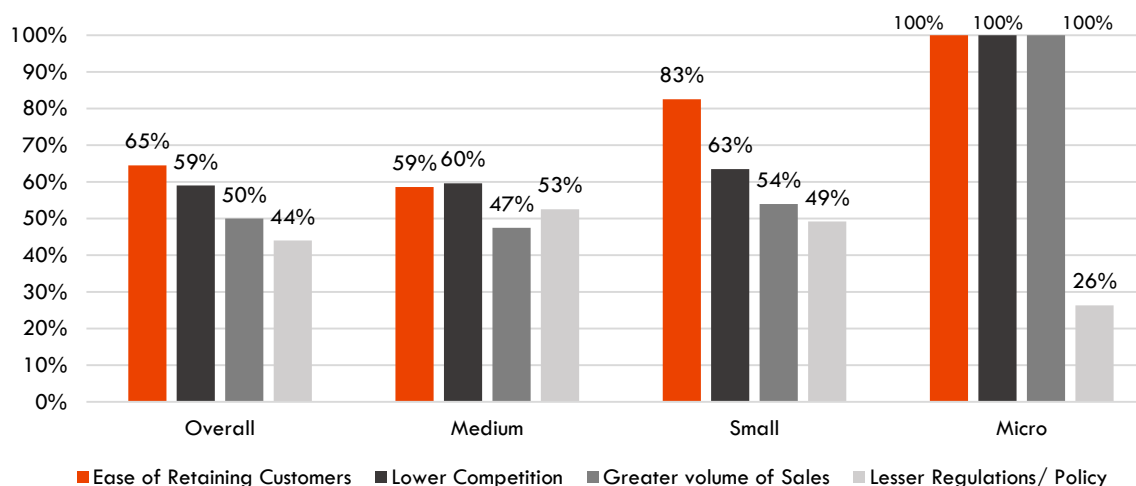


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Figure 8: The biggest benefits of having own website include ease of retaining customers and lower competition – something, which smaller enterprises struggle with

Benefits of Selling through Own Website (by percentage of respondents: overall and by size; N = 181)

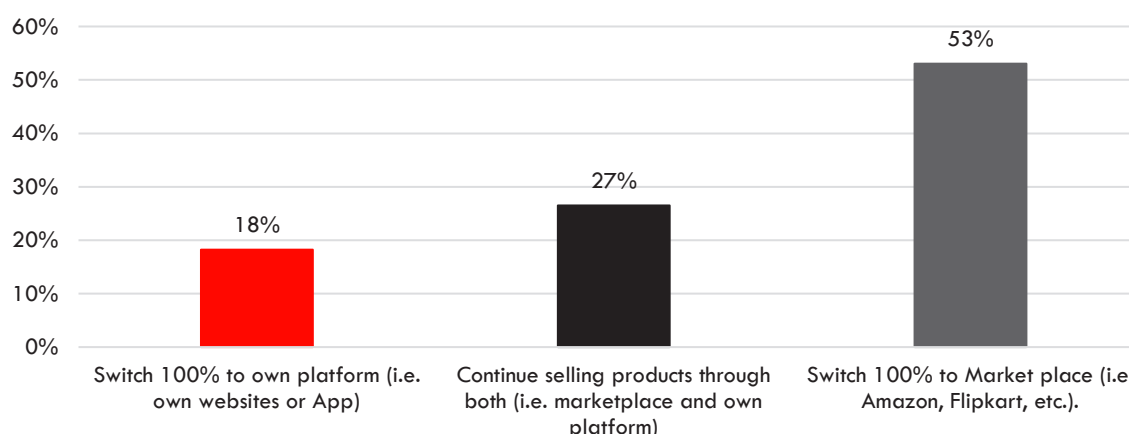


Note: This response includes only those firms that have their own website for selling online.

During the in-depth discussions, it was found that some MSMEs established their own portals after receiving training from large e-commerce platforms.

Figure 9: Going forward, a majority of the MSMEs would like to continue to sell on marketplaces and very few would like to switch 100% to their own platform.

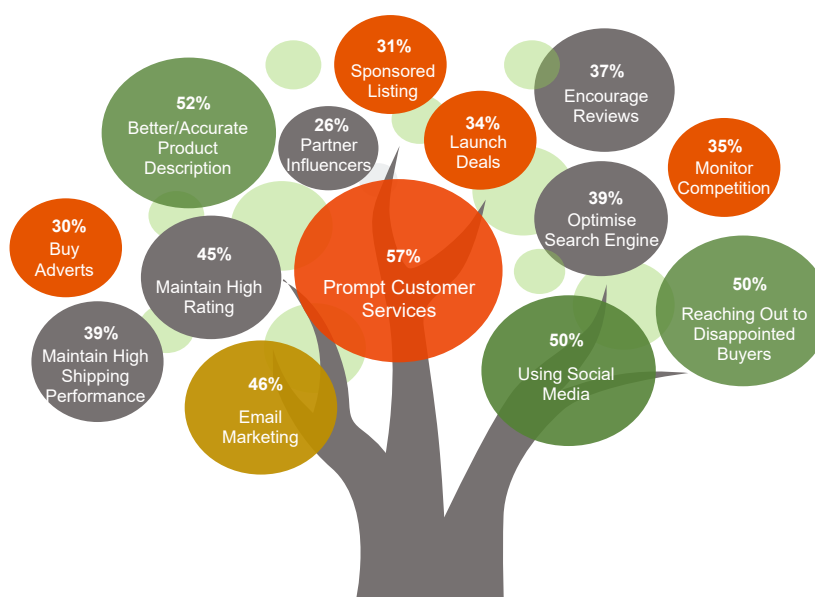
Share of MSMEs that would Continue to Sell through E-commerce Platforms (in percentage; N = 181)



Note: This response includes only those firms that have their own website for selling online.

Figure 10: Prompt customer service is the most preferred tool for marketing on platforms, followed by accuracy in product description, issue redressal and using social media tools.

Preferred Tools for Marketing on Platforms as Reported by MSMEs (by percentage of respondents)



Note: Multiple responses possible.

B. Impact on business: MSMEs integrated with e-commerce platforms are doing well

E-commerce integration has improved business prospects for MSMEs. Around 80 per cent of the firms surveyed reported an increase in the volume of sales and turnover, while close to 70 per cent reported an increase in profits after integrating with e-commerce platforms. The shares of positively affected respondents were the highest in the case of the smallest-sized (micro) enterprises.

Despite the COVID shock, MSMEs that integrated with e-commerce platforms experienced an increase in sales, turnover, and profits. Our survey found that enterprises integrated with e-commerce platforms experienced an increase in the volume of sales, turnover, and profits through the COVID period. About 70 per cent of the firms that integrated with e-commerce platforms in the last two years (during COVID), experienced an increase in sales volume. About 65 per cent experienced an increase in turnover and around 54 per cent reported an increase in their profits.

Other survey-based studies that examined the impact of COVID on MSMEs in the manufacturing sector reported significant distress. A study of 388 MSME firms, mainly from North and Central India, reported losses amounting to 17 per cent of their previous year's sales (Rathore and Khanna, 2021). The situation was significantly worse for smaller firms that account for the predominant share of Indian MSMEs. Micro enterprises experienced losses amounting to almost 24 per cent of their annual sales, whereas medium-sized firms lost about 11 per cent. A survey-based study by the Small Industries Development Bank of India (SIDBI) found that 67 per cent MSMEs surveyed reported temporary closure for up to a three-month period during COVID in the financial year 2020-21. Moreover, over 50 per cent of the respondent MSMEs experienced a decline of more than 25 per cent in their revenues during FY21. Around 66 per cent units had reported a decline in profitability on account of stable fixed costs and a decline in revenue.^{xix} Another study on Asian MSMEs found that most sample firms experienced a decline in sales revenues in the first half of 2020, as compared to the previous year (Sonobe et al, (2021). **Compared to these findings, our survey of the MSMEs integrated with e-commerce platforms suggests that even during the COVID situation, a majority of the enterprises increased their sales volumes, turnover and profits.**

Other reported benefits of integrating with e-commerce platform include ease of transaction, convenience, and higher profit margins. In the case of certain product categories, such as processed and preserved food, benefits such as learning best practices, flexibility in operations and monitoring competition are relatively more important than other benefits. Firms from the 'Kondapalli' cluster in Andhra Pradesh that specialises in indigenous toys reported a much higher percentage of positive outcomes from integration with e-commerce platforms as compared to other product categories. E-commerce opened a new and wide range of market opportunities for them.

Integration with e-commerce also facilitated access to finance. Stakeholder discussions highlighted the role of specialised fin-tech start-ups in providing formal credit to MSMEs with the least amount of hassle. Our survey as

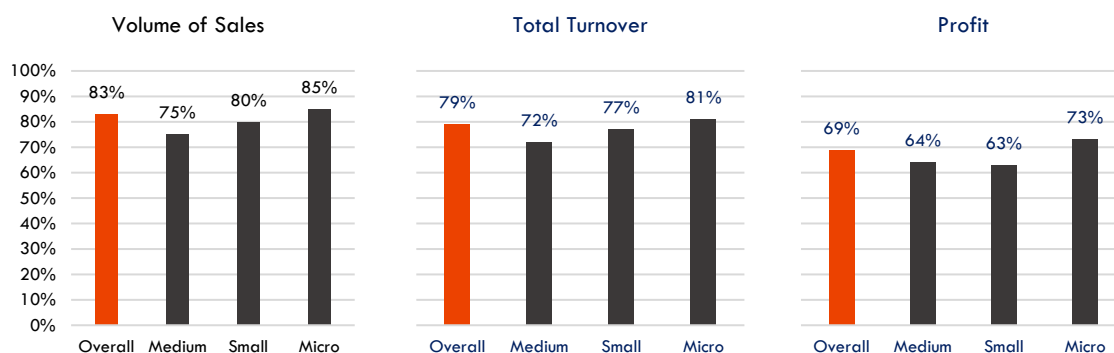
well as those carried out by other organisations highlight the lack of working capital as a major stumbling block for MSMEs.^{xx}

Rathore and Khanna (2021) in their survey of MSMEs found that 45 per cent of the firms depend on own savings (31 per cent) and informal channels (14 per cent) for their primary credit requirements. For microenterprises, this is higher (56 per cent). It was further highlighted that around 63 per cent of the surveyed enterprises did not approach a bank for additional funding during the COVID situation. Of the firms that did approach banks for funding, less than a third managed to get a loan. Reliance on moneylenders and family/friends for funds continues to be high with 36 per cent of the respondents having borrowed from these sources to meet business expenses.

Access to formal finance for small business is complex. Commonly, non-banking financial corporations (NBFCs) undertake an assessment of all assets and inventories. In the case of MSMEs, such assessments work against their needs. Banks are mostly unwilling to finance relatively newer units in the absence of a past record and credit history. Integration with e-commerce platforms opens a window of opportunity for access to formal credit. Several fin-tech companies, backed by NBFCs and the Small Industries Development Bank of India (SIDBI), provide loans to MSMEs. Often, centralised institutions have capital but lack the reach of smaller institutions. Fin-tech companies extend lending of up to INR2 crore to MSMEs that are integrated with e-commerce sellers while, for other industries, loans of up to INR50 lakh are available. Considering these are unsecured loans with no collateral/security, the online MSME store serve as security in case of defaults, providing safeguards to the lending fin-tech company.

Figure 11: Overall, MSMEs reported an increase in their sales volumes, total turnover, and profits after integrating with e-commerce platforms

Share of MSMEs Reporting Growth in Business after Integrating with E-commerce (in percentage)



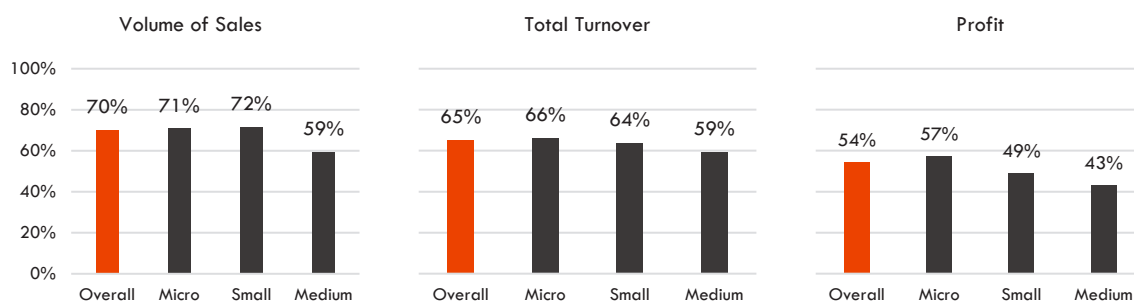
Around 9-10 per cent did not experience any change in business. The remaining 7-8 per cent of the surveyed enterprises experienced a decline. Of the total 1537 MSMEs surveyed, around 476 (30 per cent) joined e-commerce platforms during the COVID period.

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Figure 12: A majority of those enterprises that joined e-commerce during the COVID period, also experienced an increase in business volume, turnover and profits

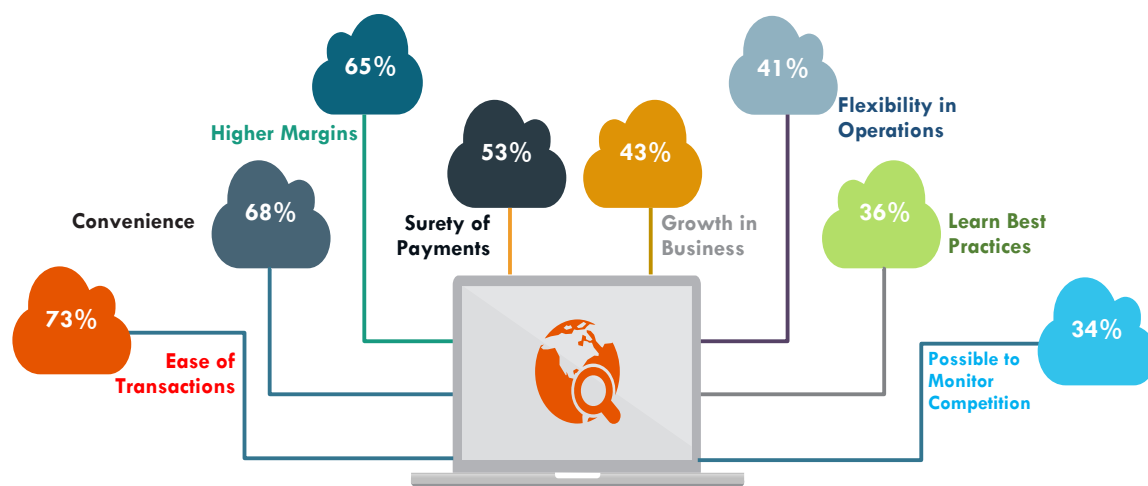
Share of MSMEs Reporting Growth in Business during COVID (in percentage: N=476)



Around 13.6 per cent did not experience any change – that is increase or decrease in sales volume, turnover, or profits.

Figure 13: Other reported benefits of selling through e-commerce platforms include, among others, ease of transactions, convenience, higher margins, and surety of payments.

Benefits of E-commerce Integration by the Percentage of Respondents



Note: Multiple response possible.

A relatively smaller percentage of MSMEs (around 30-40 per cent) reported monitoring competition, learning best practices and flexibilities in operations as notable benefits of selling through e-commerce platforms.

C. Impact on employment: The pandemic created opportunities for some, but the benefits are not uniform

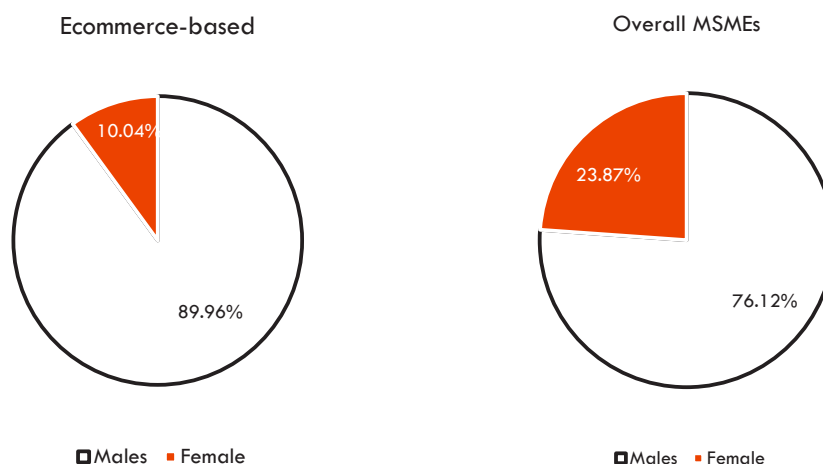
Currently, there are about 63 million MSMEs operating in India employing around 110.9 million people, making it the largest source of employment after the agricultural sector.^{xvi} There has also been a sharp increase in new players entering the MSME sector in recent years.^{xvii} This can be attributed largely to increasing internet penetration in India, which has opened up a huge online marketplace for MSMEs, leading to an increase in output.

C.1 Women remain under-represented in MSMEs integrating with e-commerce platforms

- While e-commerce has certainly improved overall employment levels in MSMEs in India, female employment has remained low in e-commerce based MSMEs as compared to other MSMEs (Figure 14).
- This low share of female employment is found in e-commerce based MSMEs operating across all states (Figure 15) and sectors (Figure 16) surveyed. Haryana reported the lowest share of female employment. In terms of sectors, furniture witnessed the lowest female participation.
- One reason for this finding could be the sectors and/or states chosen for the survey.
- Furthermore, while the share of female workers across all occupations is found to be small, it is highest amongst administrative workers and lowest amongst manufacturing workers (Figure 17). While female participation in white collared jobs has been reasonable, opportunities in blue-collared work are underexploited, as yet, by the female workforce.

Figure 14: Female employment in e-commerce based MSMEs is yet to pick up

Gender wise Distribution of Employment in MSMEs (in percentage)



Note: The data on overall MSMEs is from the 2020-21 Annual Report of the Ministry of MSMEs, Government of India.

Figure 15: Low female employment has been observed across all states

Gender wise Distribution of Employment across States (in percentage)

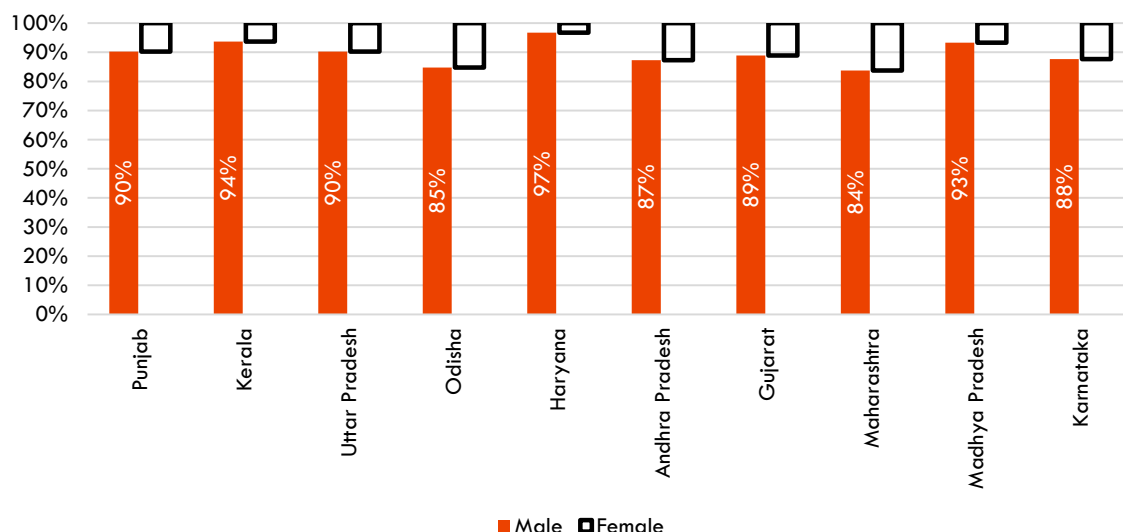


Figure 16: Low female employment has been observed across all sectors

Gender wise Distribution of Employment across Sectors (in percentage)

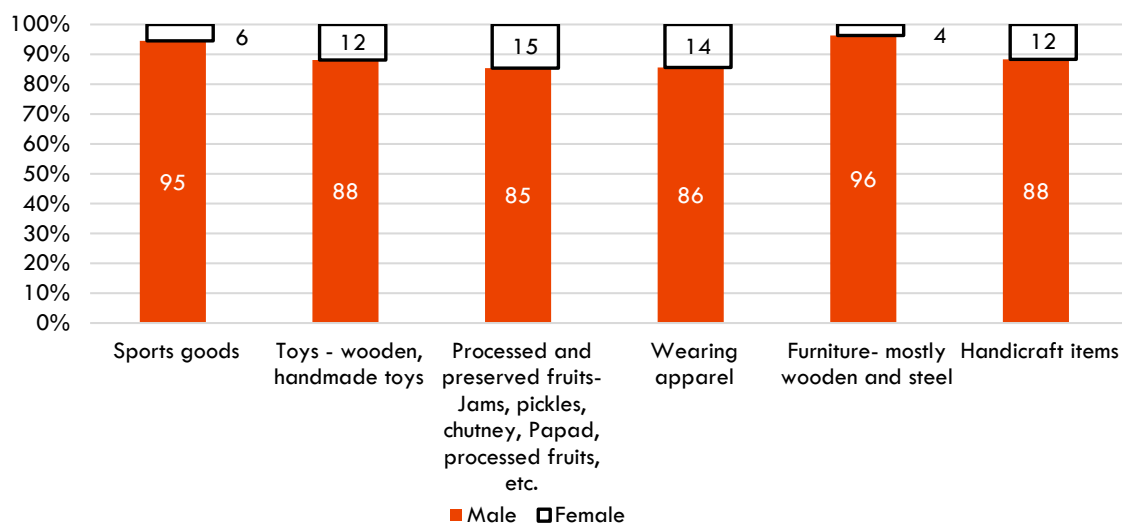
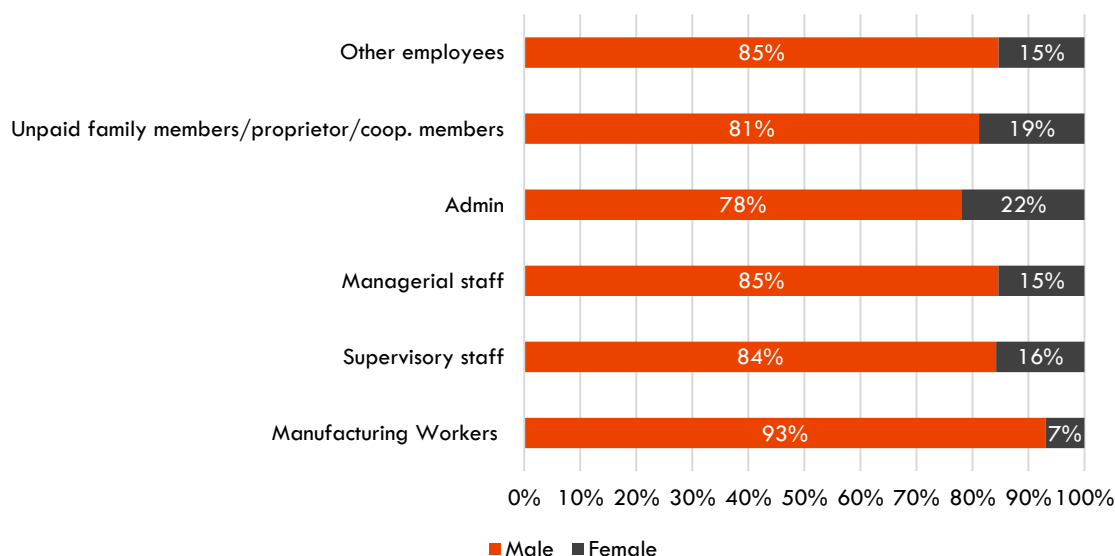


Figure 17: Low female employment has been observed across all occupations

Gender wise Distribution of Employment across Occupational Categories (in percentage)



C.2 Manufacturing workforce on the rise

- The survey finds that most firms, after integration with e-commerce, have registered an increase in the share of manufacturing workers (Figure 18), indicating that with integration, the scale of production of MSMEs has increased (perhaps due to a rise in demand), which has led to an expansion of manufacturing workforce, whereas the demand for other occupations has not shown much change
- A majority of the surveyed firms across states (Figure 19 A-D) and sectors (Figure 20 A-D) reported an increase in the number of workers. The higher proportion of firms reporting an increase in the number of workers were in Maharashtra, followed by Andhra Pradesh and Gujarat. In terms of sectors, the sub-sector Wearing Apparel registered the highest proportion of firms reporting an increase, followed by Processed and Preserved Fruits.

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Figure 18: Manufacturing workers in e-commerce based MSMEs have increased after integration

Change in Composition of Workforce after integration (in percentage)

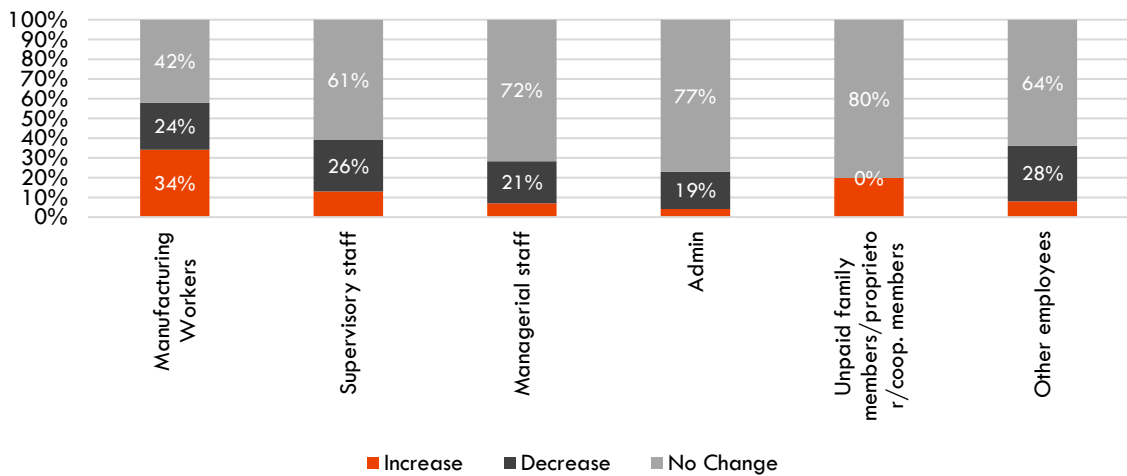


Figure 19 (A-D): Manufacturing workers in e-commerce based MSMEs have increased after integration across all states

Change in Composition of Workforce after Integration across States for Select Occupational Categories (in percentage)

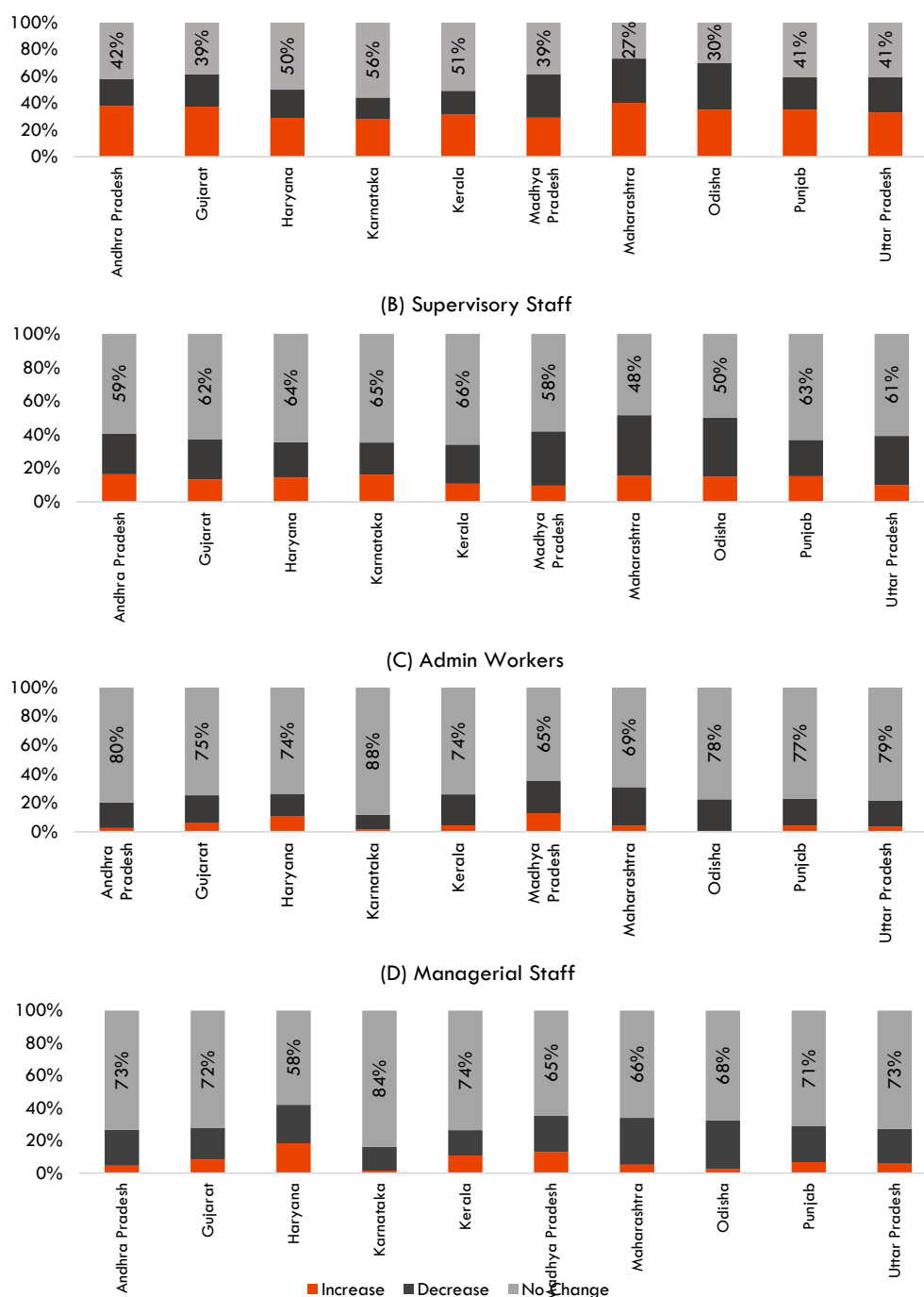
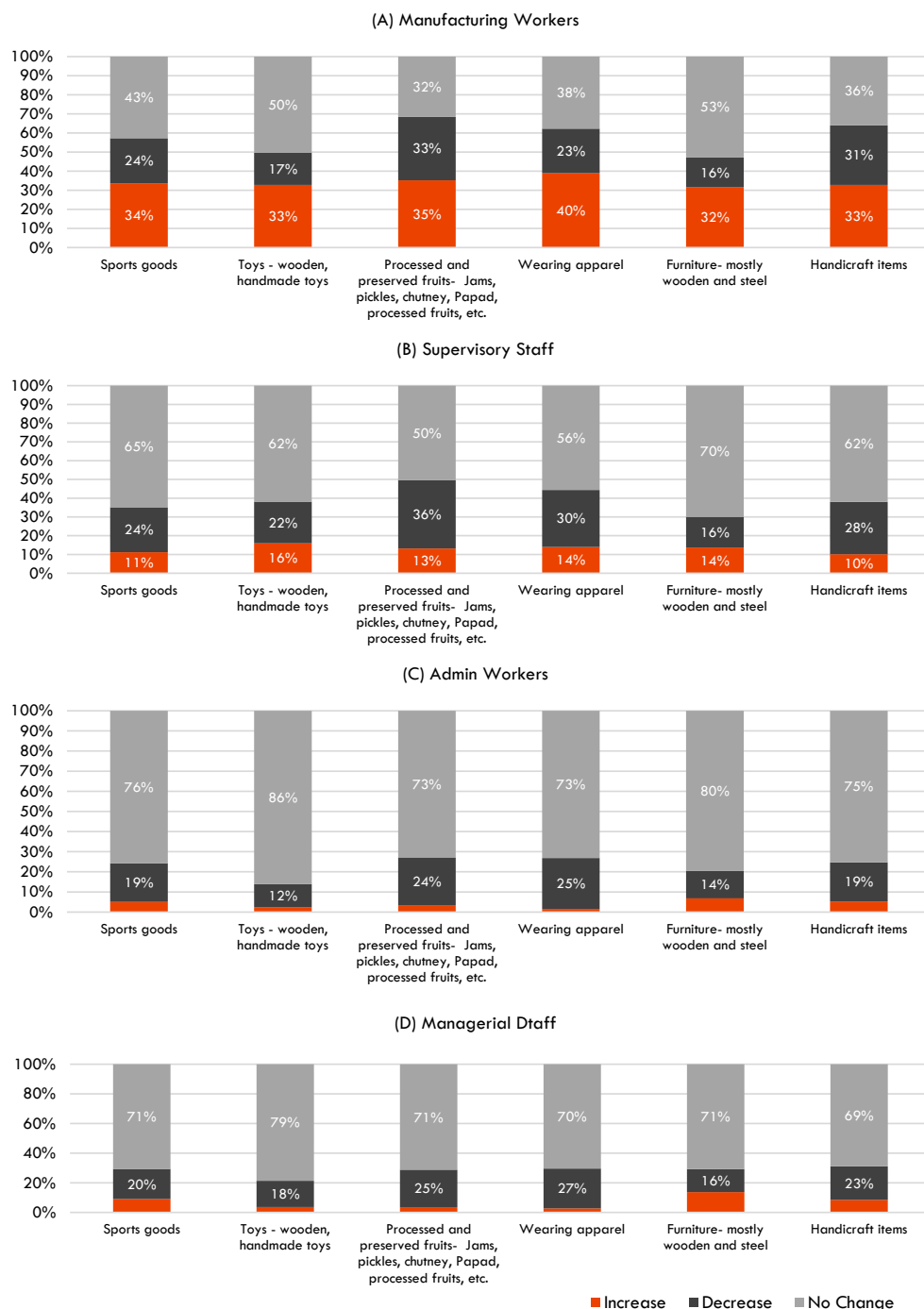


Figure 20 (A-D): Manufacturing workers in e-commerce based MSMEs have increased after integration across all industries

Change in the Composition of Workforce after Integration across Industries (in percentage)



C.3 Pandemic served as an opportunity rather than a challenge in the case of MSMEs integrated with e-commerce,

- Existing survey-based studies on the impact of COVID on MSMEs found that the pandemic led to a significant drop in overall production – from an average of 75 per cent of capacity to merely 13 per cent – indicating enormous job losses (Rathore and Khanna, 2021). The findings suggest that there was significant underutilisation of capacity amongst surveyed firms immediately prior to the lockdown. During the lockdown, these enterprises retained only 44 per cent of the pre-COVID-19 workforce, barely two months into the new financial year. Against this, our findings suggest that the pandemic in fact served as an opportunity for those MSMEs that were linked to e-commerce, as overall employment in the surveyed firms increased by around 7.8 per cent between 2019-20 and 2020-21 (Figure 21).
- However, the share of permanent workers has declined while that of contract workers has risen sharply. As contract workers provide greater flexibility to employers in terms of work hours, output, time, cost etc., they serve as an ideal form of employment in times of crisis.
- The trend has been uniform across all states (Figure 22) and sectors surveyed (Figure 23). Karnataka saw the highest increase in total employment post-COVID, followed by Gujarat. The share of contract workers has also increased sharply across all states in the post-pandemic period. Madhya Pradesh registered the highest increase of about 17.5 percentage points, followed by Haryana, reporting an increase of 14.4 percentage points. In terms of sectors, the toy industry reported the highest increase in overall employment of more than 15 per cent. The share of contract workers in the year 2020-21 was also the highest in the toys industry.
- Thus, while the pandemic led to a slowdown across overall manufacturing, firms engaged in e-commerce in fact witnessed an increase in employment, albeit of a contractual nature. E-commerce, therefore, served as a shield and provided an excellent opportunity to manufacturers as well as workers.

Figure 21: There has been an increase in employment, particularly of a contractual nature, in the post-pandemic period

Share of Permanent and Contractual Workers in Total Employment (in percentage and numbers)

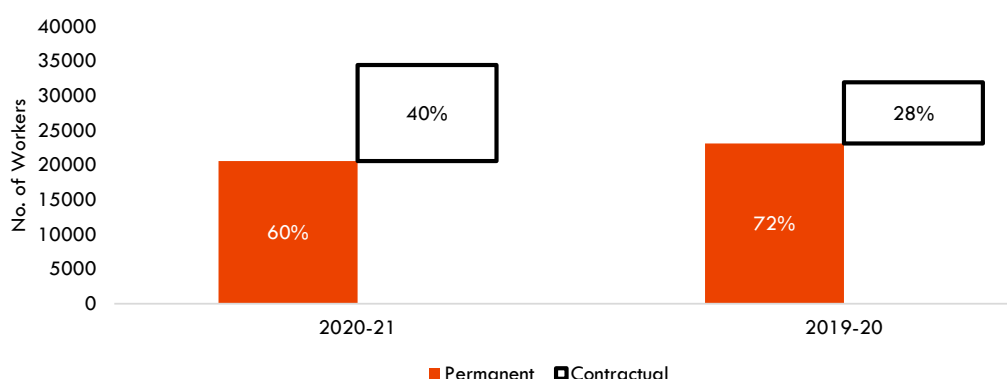


Figure 22: Contractual Employment post-pandemic has increased across all states

Share of Permanent and Contractual Workers in Total Employment across States (in percentage and numbers)

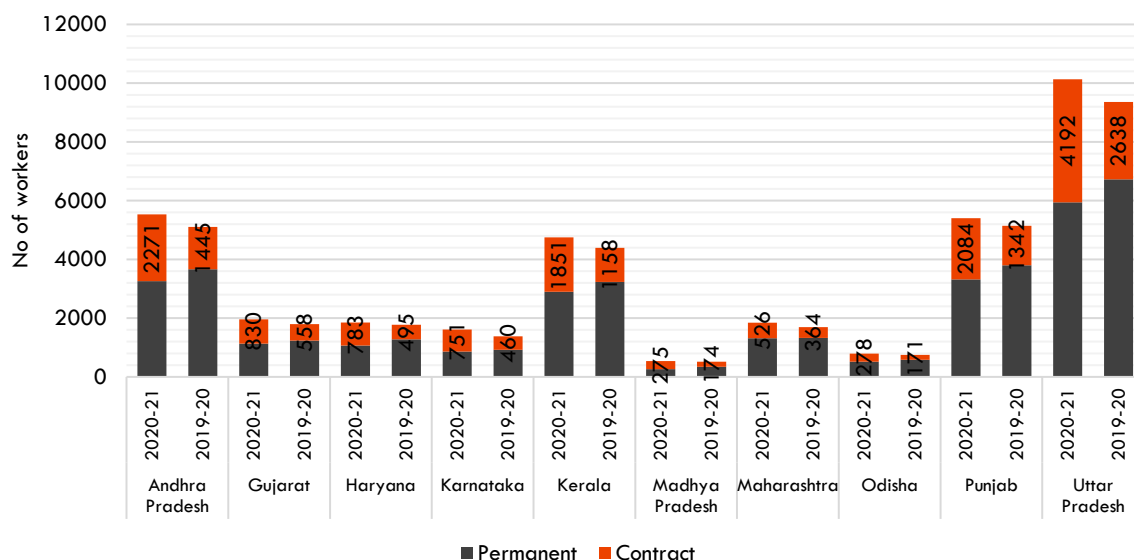
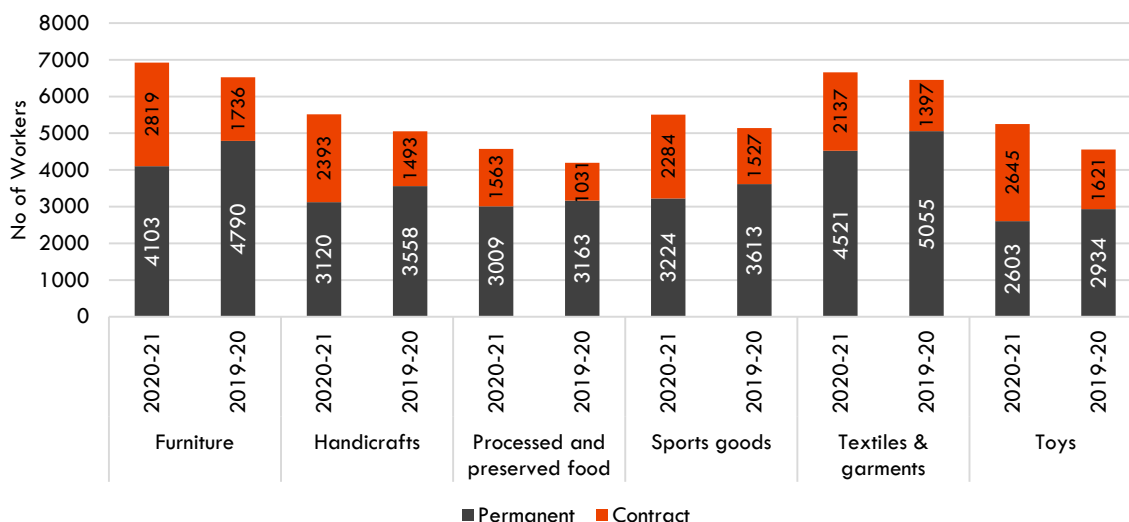


Figure 23: Contractual Employment post-pandemic has increased across all industries

Share of Permanent and Contractual Workers in Total Employment across Sectors (in percentage and numbers)



C.4 Specialised skills are required to work in E-Commerce based MSMEs

- A majority of firms surveyed reported that the workers do need some specialised skills when working for an e-commerce based MSME as compared to a non-e-commerce based firm.
- The trend is uniform across all states (Figure 24) and sectors (Figure 25) surveyed.
- Madhya Pradesh has the highest proportion of firms reporting the need for specialised skills in workers working for an e-commerce based MSME, followed by Maharashtra.
- The sports goods industry had the highest proportion of firms reporting the need for specialised skills in workers, followed by Processed and Preserved Fruits.

Figure 24: Specialised skills are required by workers across all states

Share of Employees requiring Specialised Skills (in percentage)

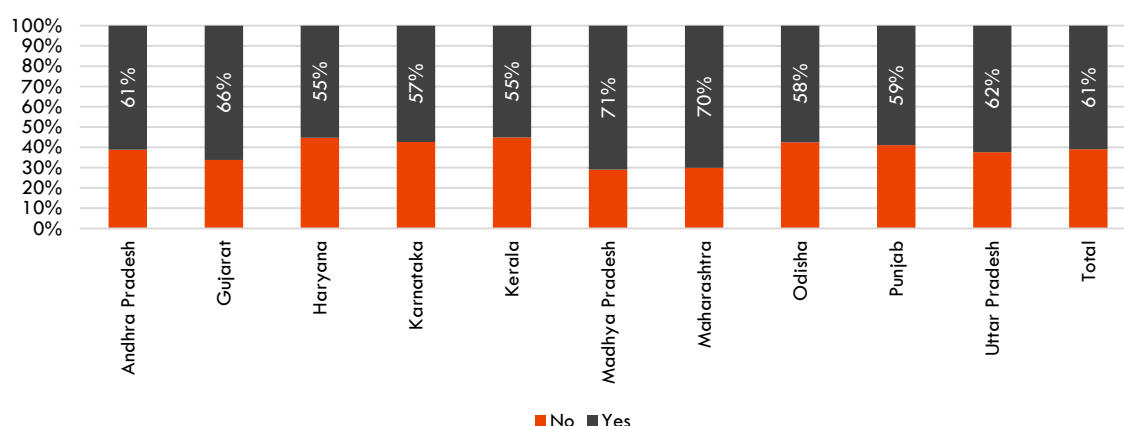
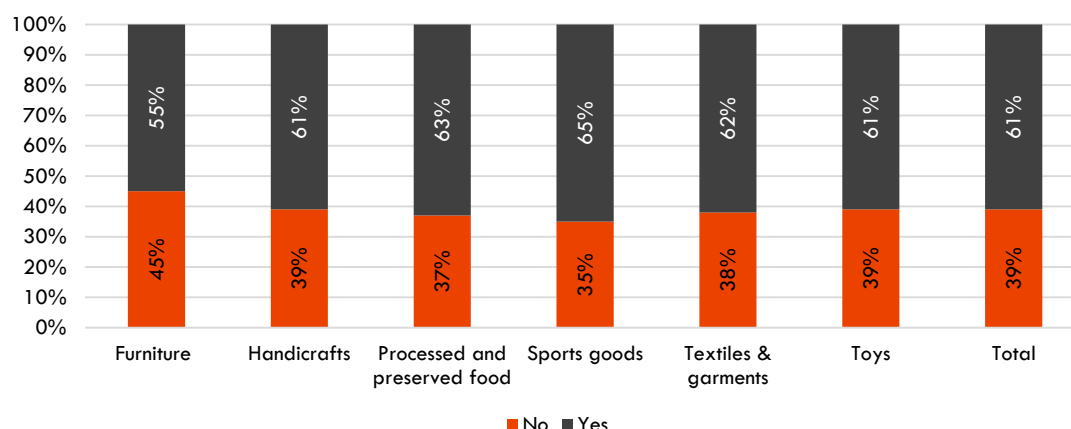


Figure 25: Specialised skills are required by workers across all sectors

Share of Employees requiring Specialised Skills by Sector (in percentage)



C.5 Education-level of workforce employed in e-commerce based MSMEs

- A large majority of MSMEs reported the mean education level of workforce as secondary and higher secondary. Only 7.5 per cent firms reported the mean education level in a particular occupation as Illiterate. (Figure 26).
- There is not much variation across states (Figure 27). MSMEs across all states report the mean education level of workforce as secondary and higher secondary. Haryana has the lowest proportion of firms reporting the mean education level in a particular occupation as Illiterate.
- Similarly, there is little variation across sectors (Figure 28). MSMEs across all sectors report the mean education level of workforce as secondary and higher secondary. The furniture industry had the lowest proportion of firms reporting the mean education level in a particular occupation as illiterate.

Figure 26: Most workers in e-commerce based MSMEs have completed secondary/higher secondary formal education

Percentage Distribution of Employees by Education Level

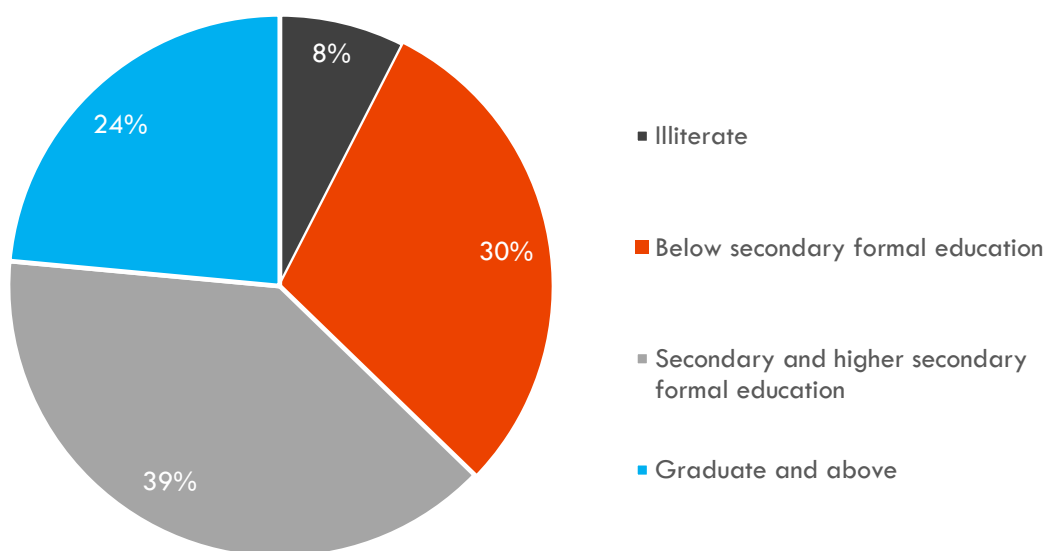


Figure 27: Most Workers in E-commerce based MSMEs across all states have completed secondary/higher secondary formal education

State wise Percentage Distribution of Employees by their Education-Level

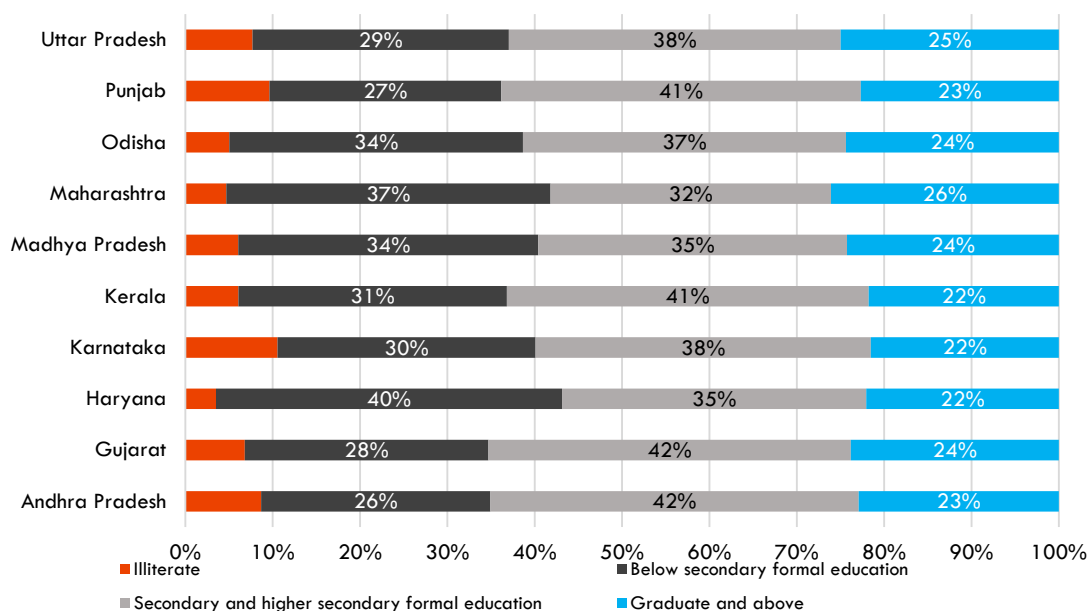
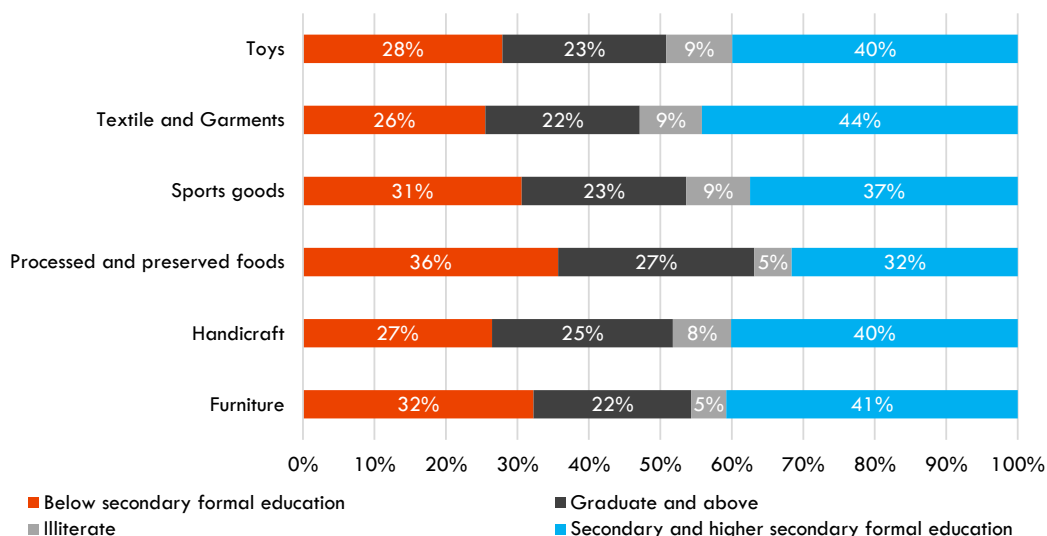


Figure 28: Most Workers in e-commerce based MSMEs across all industries have completed secondary / higher secondary formal education

Sector wise Percentage Distribution of Employees by their Education-Level



C.6 Type of worker training preferred by MSMEs

- A majority of MSMEs surveyed preferred to get their manufacturing workers trained through formal apprenticeship training (under the Apprenticeship Training Act) and through Industrial Training Institutes (ITIs); only a minority was willing to provide on-the-job training. On the other hand, in case of other white-collared workers, such as, managerial staff, administration, etc., a majority was willing to provide on-the-job training (in addition to Apprenticeship training) (Figure 29).
- The trend is uniform across all states and sectors surveyed (Figures 30 & 31).
- Madhya Pradesh reported the highest proportion of firms preferring formal apprenticeship training for manufacturing workers while Haryana had the highest proportion of firms preferring on-the-job training for administrative staff.
- Furniture manufacturing units accounted for the highest proportion of firms preferring formal apprenticeship training for manufacturing workers as well as the highest proportion of firms preferring on-the-job training for administrative staff.
- Clearly, enterprises are willing to invest in the skills of their white-collared workers by providing on-the-job training, in addition to apprenticeship training, but are not willing to do for blue-collared workers.

Figure 29: Form of training varies across type of worker, with firms preferring training through formal apprenticeship for manufacturing workers and on-the-job training for managerial and administrative staff and unpaid family members.

Occupational Category wise Distribution of Employees by the Preferred Form of Training (in percentage)

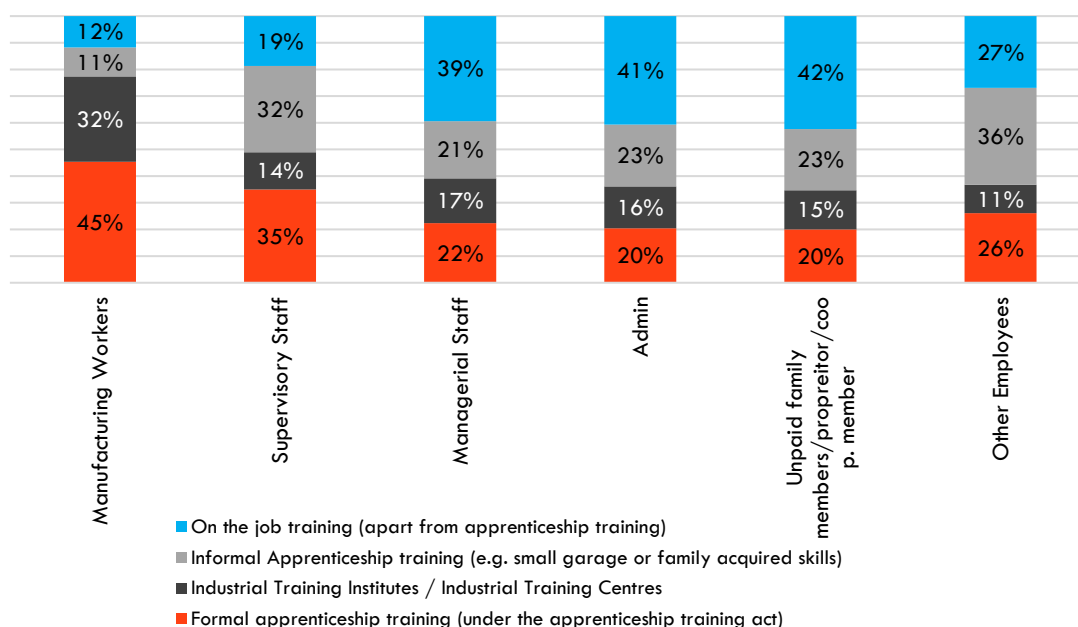


Figure 30: Form of training varies across type of worker across all states

Occupational Category wise and State wise Distribution of Employees by Preferred Form of Training (in percentage)

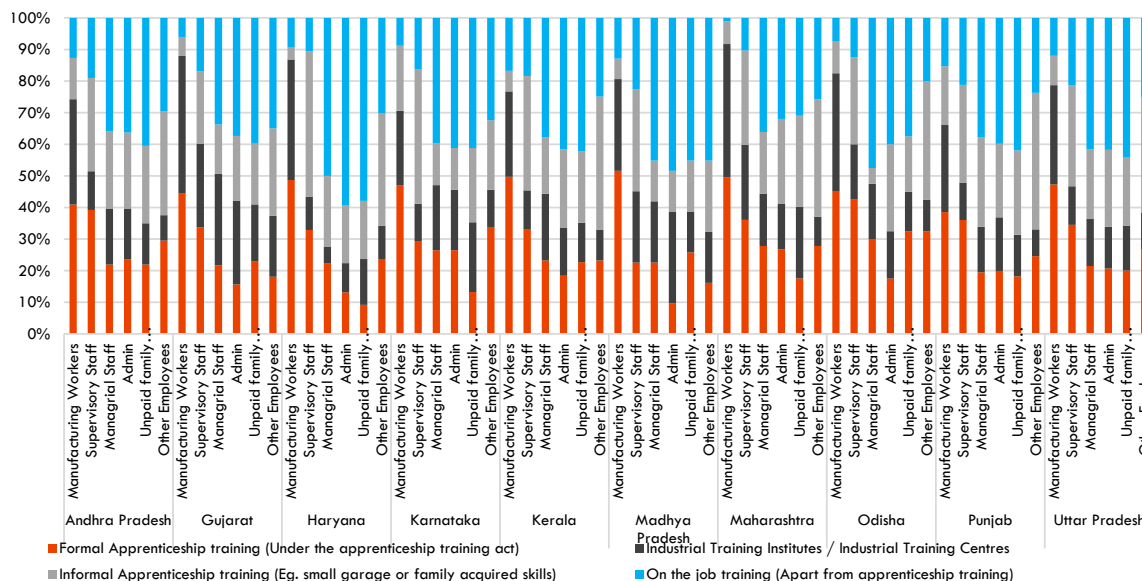
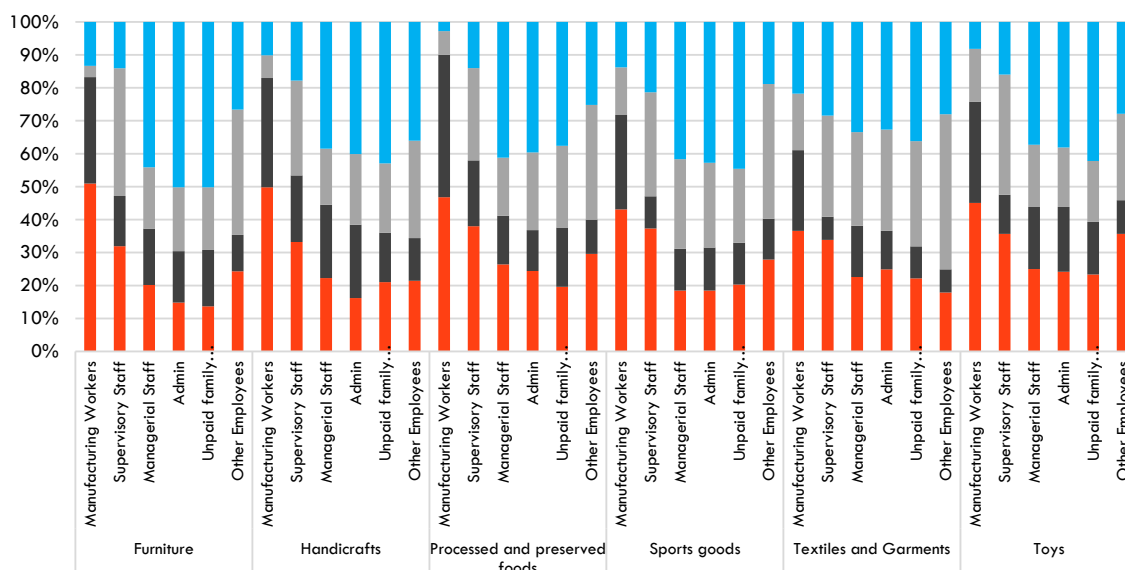


Figure 31: Form of training varies across type of worker across all industries

Occupational Category wise and Sector wise Distribution of Employees by the Preferred Form of Training (in percentage)

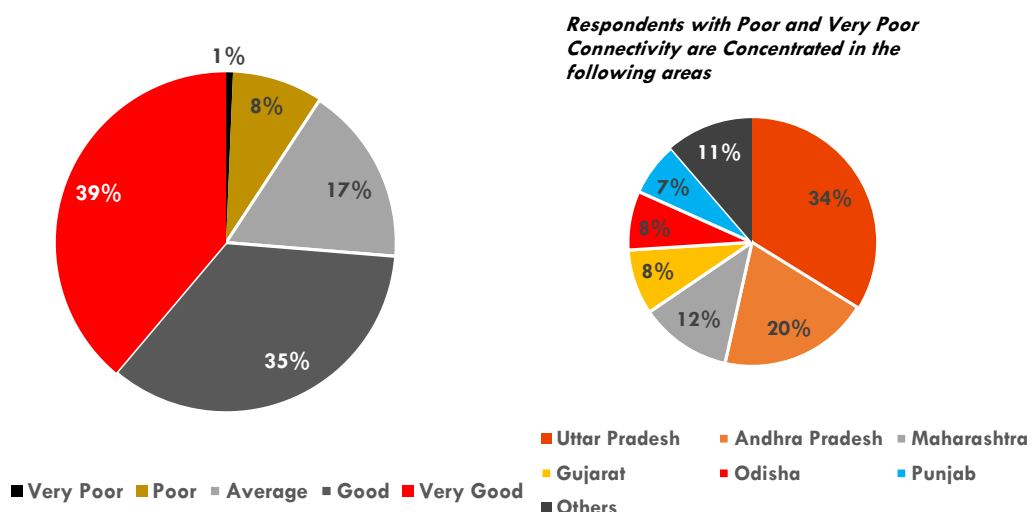


D. Digital ecosystem appears to be keeping pace with the needs of MSMEs

- A majority of the MSMEs are satisfied with the available digital infrastructure. More than 90 per cent enterprises used an internet connection supported through fixed line broadband, Wi-Fi or mobile networks. The quality of the connection varies for enterprises but for most, it is reportedly in the good and very good category. The Startup India and Digital India programmes also support digitalisation of MSMEs. The Ministry of MSME had acknowledged the catalysing role of information technology in improving the profitability of these enterprises.
- The digital payments ecosystem has also supported the growth of e-commerce and the adoption of e-commerce by MSMEs. According to the Department of MSME, digital transactions have grown to 92.02 per cent in terms of value and 90.19 per cent in volume during the year 2020-21.
- Most businesses used digital payment options and were persuaded by the government's push towards a cashless economy. While all firms use digital payment methods, a majority (55 per cent) of sales on e-commerce platforms are cash on delivery. The share of cash payment is higher for medium enterprises while micro enterprises have a relatively higher share of digital payments.
- MSMEs prefer e-wallets such as Paytm, Mobikwik, etc., amongst the various digital payment methods, followed by net banking. Ease of transactions and better safety and security were the reported benefits of using digital payments.

Figure 32: Around 75 per cent of the respondents among MSMEs have good or very good internet connectivity. Another 17 per cent have average Internet

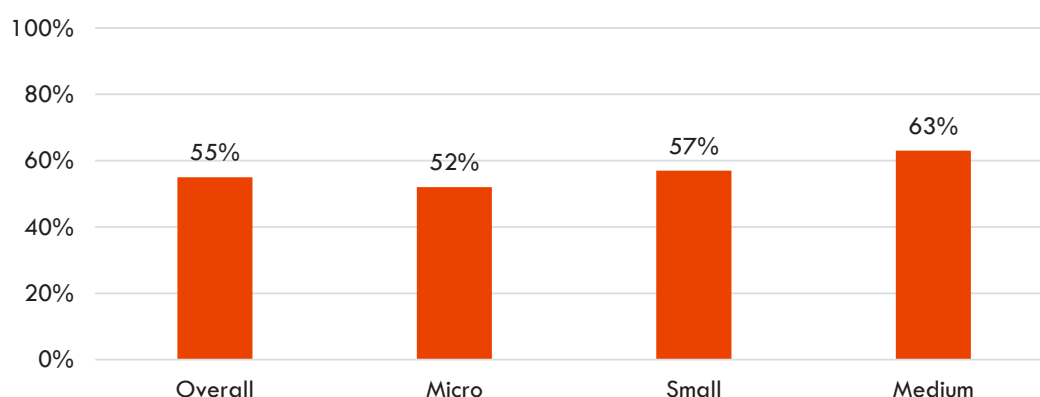
Percentage Distribution of Respondents by the Quality of Internet Connectivity:



Less than 10 per cent have poor or very poor Internet connectivity. These are largely in in Uttar Pradesh (34%) and Andhra Pradesh (20%). Most of the businesses use Wi-Fi/ broadband (73%) and mobile network to connect to the Internet. More than one source is used.

Figure 33: On Average, around 55 per cent of all payments for sales made through e-commerce platforms were received in cash

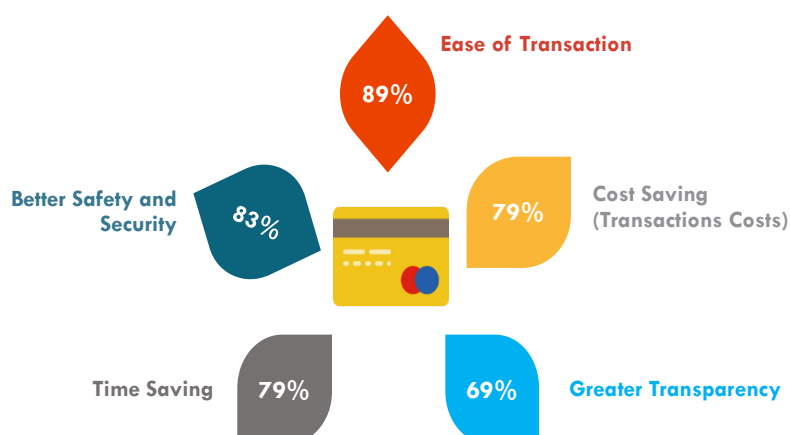
Percentage Share of Cash Payments Received on E-commerce Portals (overall and by size of enterprises)



All respondents surveyed were using digital payment methods for their transactions. The share of cash payments was the highest for medium enterprises and the lowest for micro enterprises. Overall, among the different digital payment modes, e-wallets are the most popular (91% of the respondents prefer to receive payments through e-wallets), followed by net banking (84%) and debit/credit card (68%).

Figure 34: Ease of transaction and better safety and security are found to be some of the key benefits of digital payments

Reported Benefits of Digital Payment (by percentage of respondents)

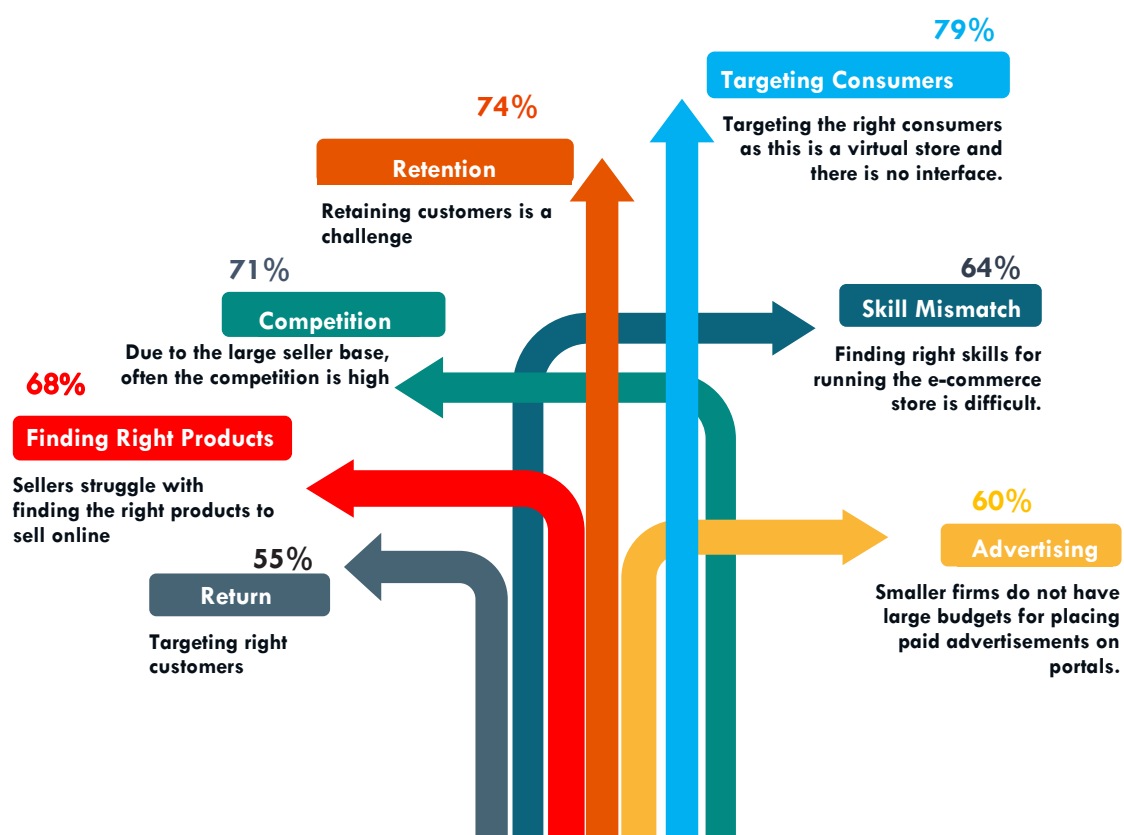


E. While digital infrastructure is improving, MSMEs face myriad “analogue” challenges

While a majority of the MSMEs have registered growth in business and employment, not all have benefitted uniformly from their integration with e-commerce platforms. The challenges that remain to be addressed are presented below.

Figure 35: Targeting the right customer seems to be the biggest challenge, followed by customer retention, competition and finding the right products, among others.

Challenges Reported by MSMEs (by the percentage of respondents reporting them)



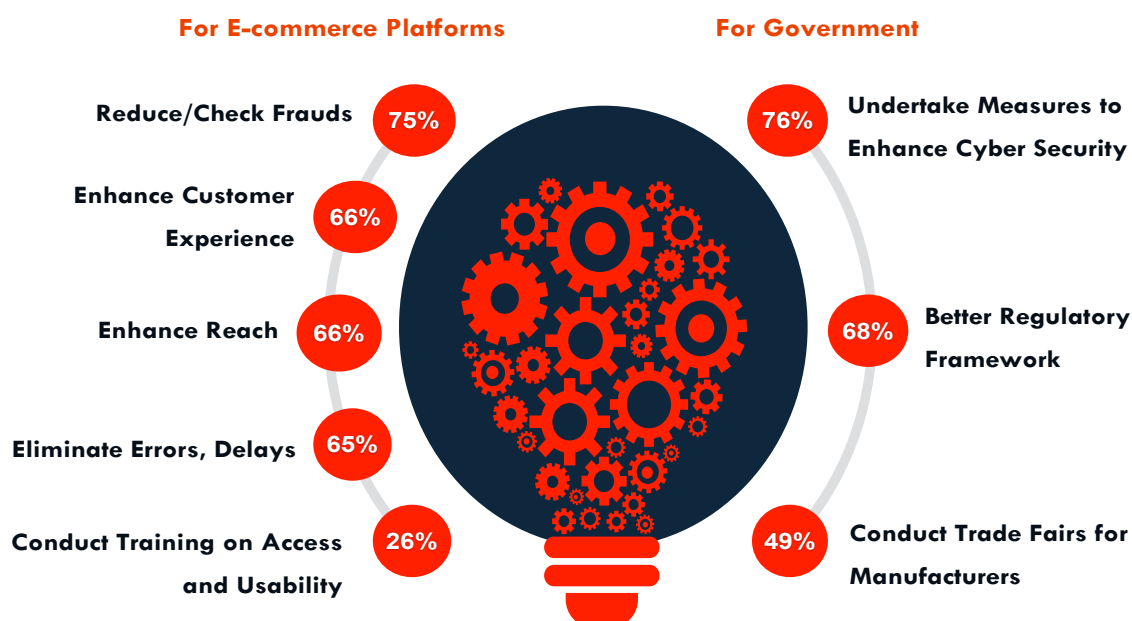
- **Targeting and Retaining Customers:** It was found during the survey that the process of switching to e-commerce is slow as businesses face difficulties in adapting to technology. Compared to physical stores, where sellers directly interface with customers, MSMEs, especially those offering new and unbranded products, face challenges in targeting and retaining customers.
- **Dealing with Wider Competition:** The large network of sellers on any online platform increases the competitive pressure faced by MSMEs. The problem is more severe for manufacturers of handmade products as they compete with manufacturers of machine-made products who offer lower prices and earn higher margins.
- **Delayed or Missing Customer Feedback:** MSMEs selling their products through physical stores have direct and real-time access to customer feedback on quality, product design, pricing, etc. In the online model, the feedback is not always available. For MSMEs to curate the right product, this mechanism needs to be strengthened. This challenge was especially highlighted by sellers of processed and preserved food and ready-to-wear apparels where consumer tastes and preferences vary significantly.
- **Lack of Digital Marketing Skills:** Product cataloguing is critical for online sellers to succeed on e-commerce platforms. MSMEs often find it difficult to provide accurate product descriptions including high resolution and good quality pictures of their products. This is particularly challenging for artisans selling hand-crafted products through online platforms. These MSMEs require more support to market and promote their products through e-commerce platforms. Moreover, smaller enterprises, especially micro and small units, do not have large advertising budgets and, therefore, are unable to pay for promotional campaigns, further affecting their competitive position vis-à-vis larger enterprises on e-commerce platforms.
- **Lack of training in digitalisation of business processes:** Besides digital marketing, e-commerce integration requires MSMEs to digitalise and automate other business functions and their engagement with platforms. Since most MSMEs are small, family-run businesses, they need to acquire skills to effectively engage and benefit from being on an e-commerce platform.
- **Lack of understanding for special product categories:** Multi-product platforms are often not designed to cater to the needs of specialised products like handicrafts. Online sellers of handicrafts highlighted the high risk they face on e-commerce platforms due to the mismatch in the description and the final product hand made by the artisan. Given the uniqueness of each hand made product, the shipped product may often not match the exact description/photo provided to buyers on the platform. The reasons for returns as listed on the portal are also generic and work against manufacturers of handmade products. The cost of return (courier charges) is borne by the seller when the products are rejected, creating an additional burden for these cash strapped units
- **Sale of counterfeit products:** For branded products, the presence of sellers that flood the platform with close counterfeits is a big challenge. Despite the efforts made by platforms, this challenge continues to plague e-commerce and adversely affects the online sale of new brands or established brands through platforms.

F. Collective response to leveraging technology to strengthen MSMEs in India

For MSMEs to improve their engagement with e-commerce platforms, we propose recommendations that require attention from both platform owners as well as policy makers. These recommendations came from the field survey participants and include inputs from the in-depth interviews as well.

Figure 36: The unique characteristics of MSMEs must be acknowledged by both the platforms and the government while drafting e-commerce policies.

Recommendations Made by MSMEs (by percentage of respondents)



Due to the COVID situation over the last two years, there has been significant on-boarding of MSMEs on e-commerce platforms, which was largely out of necessity. While it presented several benefits of e-commerce, challenges arise due to the current regulatory system, the nature of the Indian manufacturing sector and needs that are unique to Indian MSMEs.

It was pointed out during the survey that so far, the approach to e-commerce policy has been spontaneous, often arising in response to the need of the large unorganised nature of the retail sector in India. There is a **need to streamline policies** across ministries with a common focus, best suited to the needs of the Indian economy. Policy

patchwork leads to uncertainty and creates complexities, especially for smaller enterprises. India's manufacturing sector has a dualistic structure, with a huge unorganised sector. This should be looked at as a strength that the country possesses. There is huge potential that needs to be tapped with the use of digital technology.

The uniqueness of India's hand-made and hand-crafted products should be acknowledged while drafting policies for consumer protection. Expecting sellers of handmade goods to provide an accurate picture of the final product at the time of selling is not always possible and the inability to do so should not be considered as mis-selling. **Policies for e-commerce platforms should take in account the unique characteristics of certain MSMEs.**

At the same time, large platforms must acknowledge that the transition from offline to online retail for many enterprises has been precipitous. Our study found that, for most smaller units, it is not financially feasible to invest in paid marketing of their products. In such a scenario, it is important that the platforms **create financially feasible marketing models that ensure that MSMEs can maximise the benefits of a platform, as larger enterprises and brands do.** One such model can be linked to customer feedback. Most MSME enterprises do not have strong research and development capacities. As a result, there is reliance on customers for feedback and inputs on product design that aids development. Experimenting with technology to address some of these specific needs of small businesses may make it more worthwhile for them.

MSMEs need to upgrade their skill sets. The on-boarding to e-marketplaces requires specific skills and steps should be taken to ensure that employees and employers know about these processes. To address this, there was a felt need to intensify the training imparted to MSMEs, especially with respect to marketing their products. It was found during the survey that while larger platforms undertake dedicated training initiatives, they often find it challenging to reach out to interested MSMEs. Moreover, due to the COVID situation, these initiatives have not proved very successful over the past two years. **The private sector, and state and local governments need to undertake initiatives collaboratively and MSMEs need to be willing to participate in these initiatives.** During the in-depth interviews, it was found that before the pandemic, training became a launch pad for some small businesses to start their entrepreneurial journey.

While e-commerce provides a platform, the government must spearhead the development of MSMEs by focusing on how demand can be oriented to these enterprises, how the issue of working capital can be addressed and how the process of training and capacity building can be streamlined. The government may focus on reaching down to the bottom of the pyramid. It is found that local businesses are unaware of many of the government schemes and financial packages that are announced. Going forward, the **involvement of the local government** may be increased to spread awareness of such programmes.

Finally, for long-term assessment and future policy formulation, it is necessary to evaluate whether the observed positive impact in the selling patterns of India's MSMEs is a long-term structural shift or a temporary adjustment to the COVID-induced shock. The next phase of this study will address some of these issues.

Conclusion

The COVID-19 pandemic has been one of the many shocks that have significantly disrupted the MSME sector. Nearly 95 per cent of MSMEs were negatively affected due to the national lockdown imposed in March 2020. Amidst the turbulence, digitalisation – the use of digital technologies to change a business model and provide new revenue and value-producing opportunities – has been key to the survival and growth of the MSMEs. The digitalisation of MSMEs is taking place in the backdrop of accelerating digital connectivity in India. This is the first study to look at the effects of digitalisation on MSMEs during the COVID-19 pandemic. This report is based on a survey of over 1500 MSMEs that are selling on e-commerce platforms. It specifically captures the impact of e-commerce on MSMEs (manufacturing units) in India, including its impact on business volumes, supply chain linkages and employment. Previous studies largely focused on the challenges faced by MSMEs and the inadequacies of the ecosystem.

Our study found that MSMEs are embracing digital technologies to address the COVID situation, as the share of online sales of the surveyed enterprises has gone up during the pandemic. Moreover, the study found that MSMEs integrated with e-commerce platforms have benefited, as they experienced an increase in sales, turnover, and profits, and increased hiring during the last two years. This finding seems to be unique to the MSMEs that are selling through e-commerce platforms, as existing studies examining the impact of COVID on MSMEs found that most MSMEs either shut down or experienced a slow-down in business during the pandemic. The study highlights that while e-commerce has improved employment opportunities in MSMEs in India, women's participation in them remains extremely low. It is also found that while a majority of the MSMEs have registered a growth in business and employment, not all have benefitted uniformly from their integration with e-commerce platforms. Many MSMEs continue to face several challenges, including targeting the right customer, customer retention, dealing with competition, timely feedback, and lack of digital marketing skills.

Our report suggests that, going forward, e-commerce policies need to consider the unique characteristics of certain MSMEs, especially handicrafts, while defining seller's responsibilities and liabilities. Policies across ministries need to be streamlined. E-commerce platforms need to create financially feasible marketing models that ensure that MSMEs can maximise the benefits of a platform, as larger enterprises and brands do. Further, the MSMEs need skills development and training. While there are ongoing initiatives, this requires collaborative efforts by the private sector, state, and local government and willing participation by MSMEs.

Finally, for robust assessment and future policy formulation, it is necessary to evaluate whether the observed positive impact is a long-term structural shift or a temporary adjustment to the COVID-induced shock. It is evident that MSMEs that have integrated with e-commerce platforms are doing well, but it is not known if they are doing better than non-integrated firms and whether the former's gains are coming at the expense of the latter. These important issues will be covered in the next phase of this study.

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Appendix A: About the Survey

The objective of the survey was to examine the impact of the e-commerce industry on MSMEs in India, focusing on the manufacturing sector, and its impact on business volumes, market/supply chain linkages and employment.

A field survey 1537 of MSME (manufacturing units) was conducted. The pilot survey was conducted between June 1-10, 2021, and the full survey was conducted between June 14 and August 23, 2021. Six sectors were covered – sports goods, toys, furniture, handicrafts, textiles, and processed and preserved food. The field survey was substantiated by key informant interviews covering e-commerce platforms, government officials, industry associations and academicians, among others.

Due to the unorganised nature of manufacturing in India, a cluster-based approach was adopted to select the target respondents. The selection of states was based on a natural fallout of majority clusters in selected product categories. Once the cluster was selected, the right-hand rule method was followed to identify target respondents within selected cluster, where the investigator visited the MSMEs falling on the right of the centre of the cluster. Either 'owner' or 'key decision maker' were interviewed in MSMEs. Only those MSMEs were selected that were selling through e-commerce platforms. Sixty-three per cent of the respondents fell in the micro category, 24 per cent in small and 13 per cent in medium. All the MSMEs were registered under the Udyam registration of the Department of MSME, Government of India. As per the Udyam registration, micro enterprises constitute 93 per cent of the total registered enterprises, small constitute six per cent and medium constitute around one per cent. A majority of the enterprises (58%) are at least 10 or more years old and nearly 20 per cent have been in business for more than 20 years.

Each interview lasted 30 minutes. Initially, due to the COVID situation, both face-to-face and telephonic interviews were conducted. A sample of 50 respondents was covered using this resilient methodology. For the remaining, face-to-face interviews were conducted. Semi-structured questionnaires were used, and respondents were asked about their usage of e-commerce platforms, the impact of e-commerce on business volume, employment, perceived challenges and benefits of the platform and recommendations for the government and platform owners. Similar questions were also covered during the key information interviews. To encourage open and honest participation, and assuage any fears of identification, too many personal details were not collected and information such as sales, profits, etc., was kept optional. Complicated questions that would have required respondents to rely on guesswork (such as backdated data) were also avoided.

The respondents were spread over 10 states and the break-up is tabulated below.

Uttar Pradesh accounts for a majority of the MSME units (14%) at the all-India level, followed by West Bengal, Maharashtra, and Karnataka. A product wise and state wise breakdown of the sample is given in Table 2.

Table 1: State wise and City/Cluster wise Distribution of Survey Respondents

State	Cities/Clusters	Respondents	Percentage
Andhra Pradesh	Kondapalli; Anantapur; Vizianagram	237	15.42
Gujarat	Surat; Kutch	83	5.40
Haryana	Yamunanagar; Mahendragarh	76	4.94
Karnataka	Koppal	68	4.42
Kerala	Kottayam; Malappuram; Thrissur; Wayanad	185	12.04
Madhya Pradesh	Bhopal, Indore, Gwalior	31	2.02
Maharashtra	Solapur	97	6.31
Odisha	Berhampur	40	2.60
Punjab	Jalandhar, Ludhiana, Patiala	236	15.35
Uttar Pradesh	Sonbhadra; Kushinagar; Varanasi; Agra; Meerut; Moradabad; Bareilly; Jhansi	484	31.49

Table 2: Product and State wise Sample Distribution

Product/State	Furniture	Handicrafts	Processed and preserved foods	Sports goods	Textiles and Garments	Toys	Total
Andhra Pradesh		42			82	113	237
Gujarat		83					83
Haryana	76						76
Karnataka						68	68
Kerala	135				50		185
Madhya Pradesh		31					31
Maharashtra			97				97
Odisha			40				40
Punjab	28			106	102		236
Uttar Pradesh	24	91	113	170	23	63	484
Total	263	247	250	276	257	244	1537

MSMEs Go Digital

Leveraging Technology to Sustain during the Covid-19 Crisis

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- ¹ For this study, the definition of MSME is as defined by the Department of MSME, Government of India. Micro enterprises are classified as units with investment in plant and machinery or equipment not more than INR1 crore and annual turnover of not more than INR5 crore; small enterprises are classified as units with investment in plant and machinery or equipment not more than INR10 crore and annual turnover of not more than INR50 crore and medium enterprises are classified as units with investment in plant and machinery or equipment not more than INR50 crore and annual turnover of not more than INR250 crore.
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Indian Council for Research on International Economic Relations
Core 6A, 4th Floor, India Habitat Centre, Lodhi Road, New Delhi - 110 003, India
T: +91 11 43112400
www.icrier.org