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7 Impact of COVID-19 on Apparel Enterprises in India: An Analysis of Sustainability

Abstract: In the Indian economy, the economic repercussions of COVID-19 are visible in the informal apparel enterprises in the form of employment and livelihood losses, reduction in savings and increased debts. As they are more susceptible to economic hardships and income losses during times of crisis, understanding of sustainable practices by the informal economy becomes critical. The present study attempts to understand the impact of the crisis on the entrepreneurs and workers engaged in apparel manufacturing, focusing explicitly on the COVID-19-led environmental, economic and social sustainability practices adopted by the enterprises. It is revealed that the three pillars of sustainability are positively associated with overcoming COVID-19 led disruptions. In that sense, the “informal sector” should be considered as an asset that needs to be harnessed further to promote sustainability. A more cohesive approach that brings into its fold measures to strengthen community relations, incorporate sustainable ways of production, employ economical sustainable practices to the maximum limit and develop families as strong social institutions to achieve sustainable goals is the present need.

Keywords: informal sector, apparel manufacturing sector, COVID-19, sustainable development, Indian economy

Introduction

Over the last few decades, many of the world’s developing nations, including India, have witnessed their informal sector occupying a prominent position in their development practice. It is no surprise that approximately 90% of India’s workforce earns their livelihood from the informal sector (National Institution for Transforming India [NITI Aayog], 2018). Compared to the formal sector, employment distribution is more visible in the informal sector, as out of the total employment share of 465 million workers, 422 million are employed by the informal sector alone (Murthy, 2019). The sector’s share of the GDP and workforce comes to around 50 per cent (Kalyani, 2016) and 86.8 per cent (Murthy, 2019) respectively. Dev and Sengupta (2020) point out that

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the employment share of both the manufacturing and service sectors within the informal sector accounts for about 84 per cent. Unni and Rani (2003) noted that although the formal manufacturing sector generates the maximum share of value addition, it constitutes only 20 percent of employment; the informal manufacturing sector generates the higher share of employment at around 80 per cent.

Thus, in an informal sector-dominated economy, the disruptions in the economic activities and livelihoods of the workforce due to COVID-19 have been quite profound. In the face of COVID-19, a plethora of literature has reported the unprecedented consequences of income and employment loss on the SMEs, start-ups and the informal sector (Vyas, 2020; Roever & Rogan, 2020; Sangwan et al., 2021; Mohanty, 2019; Salamzadeh & Dana, 2020). As cited from The Centre for Monitoring Indian Economy, an article by The Hindu states that around three-quarters of the 122 million workers who became unemployed in April 2020 belonged to the informal sector (The Hindu Data Team, 2020). Also, estimated income losses came to around 4 lakh crores among the informal sector workers, only two months after the first lockdown in March 2020 (Thomas, 2020).

Within the unorganised sector in general, the apparel sector occupies a significant position in the manufacturing sector. Indrakumar (2013) points out that for developing countries like India, 15 % of the exports are from the apparel segment. In general, the apparel and textile industry occupies a prominent share of the manufacturing sector as it contributes around five per cent of India's GDP (India Brand Equity Foundation, 2022). The informal sector enterprises within the apparel sector generate the maximum share of value-added and employment (Mezzadri, 2008). The sector constitutes one of the largest employment-generating sectors in the country and has paved the way to employ a large proportion of informal sector workers especially for women, semi-skilled and even unskilled labourers, accounting for about 88 per cent of total apparel employment in 2010–11 (India Brand Equity Foundation, 2022; Khan, 2020; Roy, 2009).

The apparel industry in India is concentrated primarily around 20 clusters in the country, namely Delhi, Ludhiana and Jaipur in northern India, Kolkata in eastern India, Mumbai in western India, and Chennai, Bangalore, and Tirupur in southern India (Indrakumar, 2013). However, in North–East India, the importance of apparel manufacturing can be seen from the fact that for states like Arunachal Pradesh, Meghalaya and Tripura, the manufacturing of apparel's share to the total Urban Informal Manufacturing Sector (UIMS) is around 42.4 percent, 41 percent and 21.4 percent respectively (NSSO, 2015–16). For Assam, the sector constituted the highest share at 18 percent (NSSO, 2010–11) and 30 percent (NSSO, 2015–2016) respectively in the total UIMS.

With the advent of COVID-19, the heavy toll on the livelihood and earnings of people engaged in the informal apparel sector caused by the pandemic outbreak is indubitable. As referenced from studies (Magidi, 2022; Masocha & Fatoki, 2018), while problems of job loss and financial hardships were inevitable, the importance of a shift towards sustainability measures within the enterprises has gained quite an im-

portance. On that background, the chapter, in general, brings into focus the unprecedented ramifications of COVID-19 on the livelihoods of the informal apparel workers and particularly new perspectives on sustainability measures employed within the enterprises to combat the crisis better.

Review of Literature

The study divides the literature thematically into two sections: firstly, we discuss the impact of COVID-19 on the informal apparel manufacturing enterprise in terms of loss of income and employment. Secondly, a brief exploration on the conceptual framework of sustainability explicitly focusing on environmental, social and economic sustainability and how it can be linked up with the development practices of the informal sector enterprises is undertaken.

Impact of COVID-19

The apparel industry was among the hardest hit sectors by COVID-19 (ILO, 2020). In fact, studies argue that the garment manufacturing sector has borne one of the highest income losses (ILO, 2020). Mirdha (2020) discusses how there have been significant disruptions in apparel firms' supply and demand channels, causing disruptions in cash flow arrangements. The greater brunt of the crisis was endured by the workers, who, despite completing the orders, were not paid their due wages. An ILO (2020) study puts forward the argument that the severity of the lockdown is related to the decline in consumer demand. The leading explanation for the massive impact on garment enterprises is related to the fact that there was a significant fall in consumer demand primarily due to uncertainty among consumers on whether to make further purchases, along with the closedown of shops and halting down of different modes of transportation.

Drawing on a study by Self Employed Women's Association (SEWA), it was reported that women in the informal sector have found it increasingly difficult to get employment due to the financial crisis and less accessibility to markets. Additionally, in a study conducted across 12 states in India, 78 per cent of women reported a reduction in their savings (Sen et al., 2020). In a study conducted globally in 12 cities by WEIGO, there were higher rates of borrowing and liquidation of assets observed among the informal workers (Roever & Rogan, 2020). One of the long-standing problems and most significant challenges is how efficiently better credit support can be provided to these workers in times of crisis. The pandemic has shown how lack of access to financial services has made workers increasingly dependent on informal sources like moneylenders to meet their financial needs while simultaneously making

massive cuts in their consumption expenditure (Dev & Sengupta, 2020). However, on the positive side, the pandemic also showed how challenges were transformed into opportunities when the garment workers resorted to mass production of clothing masks in view of the growing demand (Khan, 2020).

Sustainability in Informal Apparel Enterprises

The theory of “sustainable development” is built upon three concepts: economic, social and environmental sustainability (Kahn, 1995). Although sustainable development appertains mostly to environmental sustainability, a broad understanding of sustainability requires encompassing both economic and social factors too (*Textile Today*, 2019).

Sustainability, as a concept, should be understood as the capacity to facilitate development by taking account of both economic output and societal necessities (Magidi, 2022). Both the sustainable development dimensions of economic and social sustainability focus on aspiring for development by aiming for efficiency in economic output, gaining an edge by improvising market survival techniques, all in all, by considering societal aspirations and needs (Masocha & Fatoki, 2018). An idea behind environmental sustainability is that wastes generated should not exceed the absorbing capacity of the earth; thus, humans should strive to protect the natural capital (Annaldewar et al., 2021; Goodland, 2002) and engage in a sustainable way of production (Asif, 2017).

The social sustainability approach depends on the optimal use of resources along with their allocation and fair distribution (Kahn, 1995). Social sustainability, as a practice, has recently come to light in the developed and developing regions of the world (Dempsey et al., 2011). It strives to sustain social capital, that is, by bringing communities to engage and work together, thus, building networks of relationships and getting more access to institutions at large (Stanley, 2003). Advocating community participation to sharing common ideals to ensure they mutually benefit is seen as a practice to achieve social sustainability (Goodland, 2002). Thus, development should ensure that people’s aspirations and needs are met by considering the social and cultural aspects (Benaim & Raftis, 2008). On the other side, economic sustainability implies the sustainable use of economic goods by ensuring that future needs are met efficiently (Kahn, 1995; Lobo et al., 2015). It takes shape when enterprises can withstand economic disturbances by creating favourable conditions in the form of reduction of their operating costs and implementing investment plans to improve production levels, to name a few (Aldaadi, 2021). Furthermore, environmental sustainability eventuates when business practices stress on reuse and recycling of resources. The goal is to negate the negative environmental impacts by incorporating eco-friendly forms of technology in the production process (Asif, 2017).

Groschl (2021) argues that there has been a vast number of studies on sustainability pertaining to the formal sector; however, discourses on sustainability practices in the informal sector encompassing the heterogeneous nature of activities have not been much discussed. In a study by Magidi (2022), the informal sector has been shown as a vehicle to promote social sustainability through fostering social cohesion and building social capital. This has collectively brought communities together and built networks based on trust and belongingness to address and overcome challenges. Thus, for being more susceptible to economic hardships and income losses during crises, understanding such sustainable practices by the informal economy becomes critical.

Despite the ongoing business competition, there are instances where informal sector actors have pooled money together to help each other out during an economic crisis (Magidi, 2022). Curtis (2003) noted that self-sustaining local communities like that of the informal sector could play a prominent role in achieving economic sustainability. Due to the nature of work and their ability to quickly adhere to changes in the market, the informal economy can drive the way towards reaching a sustainable future (Ruzek, 2015). In the works of Uzo and Shittu (2019), social responsibility practices among the informal enterprises have been positively linked to sustainable development. In the Indian economy liberalisation brought favourable opportunities for developing sustainable self-employment, but the prevailing education system caused a major setback in facilitating innovative entrepreneurship (Dana, 2000).

For industries such as that of apparel enterprises, business operations need to ensure synergy between economic, social and environmental sustainability (*Textile Today*, 2019). However, during COVID-19, sustaining financial stability became more of a priority for business operations, leading to a setback in sustainable practices in the apparel sector (Aldaadi, 2021; Sharpe et al., 2022). Moreover, the disruptions in demand and supply chains, reduction in household expenses and reduced wages affected the workers' lives in varied ways, which were exacerbated to a greater extent due to the absence of social safety nets (Annaldewar et al., 2021; Trautims et al., 2020). Ricchetti and Palma (2020) suggest that the post-COVID-19 lockdown has created a landscape or, more so, a wake-up call to prioritise a switch towards sustainability to avoid severe long-term consequences in the apparel market.

A pilot survey undertaken by us during the aftermath of the first phase of the lockdown (January-February 2021) showed how the unprecedented disruptions in the business operations of informal apparel manufacturing enterprises led to immense loss of employment and income. However, some enterprises were able to cope with the crisis better by functioning in an environmentally, socially and economically sustainable manner, which leads us to infer that analysing it for larger sample units will give us a holistic understanding of how COVID-19 had driven sustainability in these small enterprises to palliate their way to an early recovery. In that line of discussion, one of the aspects to reflect upon is the COVID-19-led sustainability practices adopted by the enterprises. Thus, the present study attempts to examine and explore the activ-

ities of the informal apparel manufacturing enterprises with respect to the three pillars of sustainability during a period of economic turmoil and uncertainty of COVID-19. The empirical findings on quantitative and qualitative data will shed light on how contextualising sustainability becomes imperative during crises like COVID-19.

One of the essential research gaps the study aims to address is that the majority of the prevailing literature documenting the intensity of the COVID-19 crisis had centred on the major apparel clusters of the country, such as Tirupur, Indore and Ludhiana (Mehta & Kaur, 2021; Mishra & Singh, 2020; Mahajan & Bains, 2020; Krishnan, 2020). Although studies have documented the severity of the crisis in the biggest apparel manufacturing hubs of the world in Myanmar and Bangladesh (Sen et al., 2020; Chakraborty & Biswas, 2020; Kabir et al., 2020), there is not a single study in North-East India that relates to the impact of COVID-19 on the apparel sector. Also, within the apparel sector, the literature is replete with studies that have focused on measures and importance of incorporating sustainability on the production processes in the post-Covid world (Annaldevar et al., 2021; Casteneda et al., 2021; Sharpe et al., 2022); however, there is a dearth of literature on the sustainability practices adopted, especially among the small businesses amid the pandemic.

As against this background, two research questions have been addressed by the chapter: i) is there variability in the impact of COVID-19 on informal apparel manufacturing enterprises, and how have sustainable practices played a role in minimising its impact on business operations?; ii) what are the environmental, social and economic sustainability practices adopted by informal apparel manufacturing enterprises during the COVID-19 crisis? Both research questions will give insight into whether sustainable approaches have positively paved the way for informal apparel manufacturing enterprises to attenuate the negative consequences of COVID-19.

The study also proposes two hypotheses as follows:

- (i) During economic turmoil like the COVID-19 crisis, social sustainability becomes more critical for the existence and continuity of informal apparel manufacturing enterprises; and
- (ii) Economic and environmental sustainability practices in terms of coping strategies are seen as the vital plan of action among the informal apparel manufacturing enterprises during the COVID-19 crisis.

In addition to the Introduction and Review of literature in Sections 1 and 2 respectively, the chapter is structured into the following: Section 3 lays out the description of study area; Section 4 discusses the data sources and methodology adopted for analysis of the data. Section 5 integrates the important findings that emerged from the study within the framework of sustainability. Finally, Section 6 provides the conclusion.

Description of Study Area

Our study area is located in Guwahati city of Assam, in the north-east of India. Assam is known to be the largest, comparatively developed and easily accessible state in this area. The state is divided into 35 districts and Guwahati, falling under the Kamrup Metropolitan district. Being Assam's largest city, Guwahati is a fast-growing city. In addition to serving as a dominant centre of retail, commercial and industrial activities, the city also acts as a node to connect the other neighbouring north-eastern states of Tripura, Mizoram, Nagaland, Manipur, Meghalaya and Arunachal Pradesh.

During the last few decades, Guwahati has witnessed a wide range of informal sector activities, mostly occupied by the migrant workforce from all over the country. The importance of the informal sector can be stated from the fact that around 90 per cent of the city's total employment comprised of the informal sector during the period of 2001–2011 (Das, 2016).

Data and Methodology

Data Source

Guwahati is chosen as the area for primary data collection. The final survey was conducted during the period of April 2021–November 2021. From each of the six zones as demarcated by the Guwahati Municipal Corporation, the population units which comprised of all the informal apparel manufacturing enterprises were identified by employing the street counting and snowball sampling (Groenland & Dana, 2020) method (Figure 7.1).

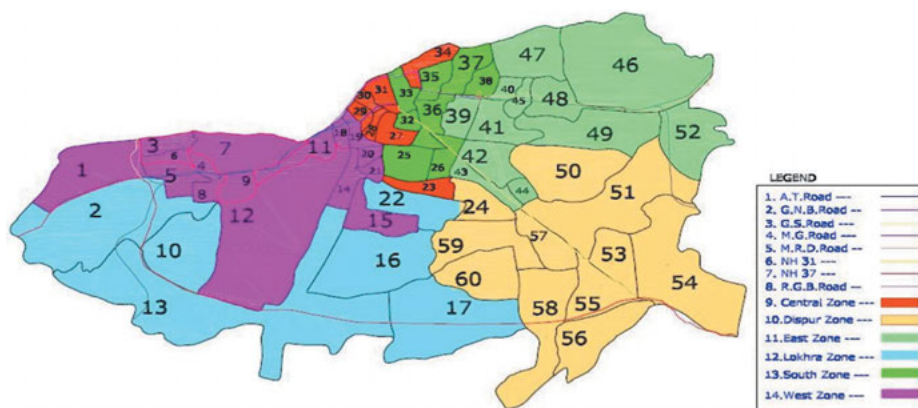


Figure 7.1: Zones demarcation of Guwahati Municipal Corporation.
Source: Guwahati Municipal Corporation.

Accordingly, the sampling frame was constructed by following three criteria:

- (a) All the informal apparel manufacturing enterprises with less than 10 workers.
- (b) Unincorporated manufacturing enterprises in the textiles sector not including the
 - (i) government/ public sector enterprises
 - (ii) cooperatives and
 - (iii) those enterprises which are registered under sections 2m(i) and 2m(ii) of the Factories Act, 1948 or bidi and cigar manufacturing enterprises registered under Bidi and Cigar Workers (Condition of Employment) Act, 1966.
- (c) Informal apparel manufacturing enterprises that are at least in five years of operation or more.

After the sampling frame was constructed which comprised of 1,200 enterprises, the proportionate sampling method was employed to choose the sample size from each of the zones relative to the entire population units (Table 7.1). For the study, 500 enterprises were chosen as final sample units.

Table 7.1: Proportionate sampling technique.

Zones	No. of enterprises	Proportion to total	No. of sample units for zone	Actual no. of sample units for the study
Dispur zone	385	0.321	160.42	160
Lokhra zone	54	0.045	22.50	22
East zone	270	0.225	112.50	113
Central zone	202	0.168	84.17	84
South zone	112	0.093	46.67	47
West zone	177	0.148	73.75	74
	1200		500	

Source: field data.

Methodology

The study undertakes a mixed method research approach using both semi-structured interviews and a structured questionnaire (Harris & Brown, 2010). For the quantitative analysis of the data, a logistic regression has been used to analyse the disproportionate impact of the pandemic on informal apparel manufacturing enterprises. The main purpose of the use of a logistic regression model is to understand how the impact of the crisis is disproportionate among the enterprises based on various factors and investigate whether sustainability practices play a role in combating the crisis. To determine the dependent variable, the variability of yearly income distribution between the pre-COVID-19 (January 2019-December 2019) period and during COVID-19 period (Janu-

Table 7.2: Index for determining the dependent variable.

Indicators	Description
Enterprises reporting less than 60 per cent decrease in income	Small impact (coded as 0)
Enterprises reporting 60 per cent or more decrease in income	Large impact (coded as 1)

Source: Field data.

ary 2020–December 2020) is calculated.¹ The indicators for the dependent variable are then determined as percentage change in the annual income levels (Table 7.2).

The logistic regression model is given in the form (Arimah, 2001):

$$\text{Log} \frac{P}{1-P} = a_0 + B_i X_i$$

Solving for P,

$$\frac{P}{1-P} = e^{a_0 + B_i X_i}$$

$$P = (1-P) e^{a_0 + B_i X_i}$$

$$P + P e^{a_0 + B_i X_i} = e^{a_0 + B_i X_i}$$

$$P(1 + e^{a_0 + B_i X_i}) = e^{a_0 + B_i X_i}$$

$$P = \frac{e^{a_0 + B_i X_i}}{1 + e^{a_0 + B_i X_i}}$$

$$P = \frac{1}{1 + e^{a_0 + B_i X_i}} \quad (1)$$

Equation (1) denotes the cumulative logistic probability function, where

P = Probability of a large impact due to COVID-19

a_0 = Intercept

B_i = Parameters to be estimated in the model

X_i = Regress and values

Additionally, the study also employs the qualitative analysis methodology in order to have an in-depth understanding of the social, environmental context of the challenges encompassing the enterprises, which is often overlooked by the quantitative analysis (Dana & Dana, 2005). Following the social distancing measures, face to face interviews were conducted with the respondents regarding the challenges and issues faced amid the crisis. After appropriate coding of the recorded responses, certain themes were identified as shown in Table 7.3.

¹ The calculations are based on the primary survey.

Table 7.3: Summary of the themes identified.

Major themes	Sub-themes
Coping up strategies	Engagement in alternative opportunities Linkages with formal sector
Problems encountered	Financial hurdles Low consumer demand
Source of credit	Borrowing from formal/ informal sources Self -help groups
Productive use of time during lockdown	Use of digital media Self-engagement

Source: field data.

Finally at the end, for a detailed analysis on the envisaged support mechanisms, the study adopts a Likert scale analysis to measure the entrepreneurs' responses.

Findings and Discussion

Regression Results: Excerpts from Quantitative Analysis

For the logistic regression model, the predictor variables chosen to affect the dependent variable (large impact) are: entrepreneur's gender (GNDR), whether any kind of financial aid was received (FINA), the type of establishment (ESTB), total workers working in the enterprise during the period (TWRK),² type of ownership of the enterprise (OWNE), whether the entrepreneur had any savings (SAVE) and whether the entrepreneur had an alternative income source (ALTI). The main focus here is to analyse whether the type of ownership of the enterprise (OWNE) has a significant impact in explaining the likelihood of enterprises enduring a large impact. It is envisaged that enterprises which are not family based will have a higher likelihood of being impacted by a large extent. Table 7.4 presents the description of the predictors.

Moving ahead, the results show that the model doesn't suffer from multicollinearity problem, since the tolerance value is found to be greater than 0.02 and VIF less than 10 (see Table 7.7. in the appendix). Also, the model is considered to be a good fit from the model fit statistics shown in Table 7.5.

² It must be noted that the endogeneity problem due to workers going back to their native villages during the COVID-19 period causing manufacturing disruptions has been controlled in the regression by considering only those enterprises where in both the pre-COVID-19 and during COVID-19 period workers have remained the same.

Table 7.4: Description of the predictors.

ALTI (Alternative source of income)	(Dummy) Yes=1, No=0
FINA (Financial aid received)	(Dummy) Yes=1, No=0
GNDR (Gender of the entrepreneur)	(Dummy) Male=1, Female=0
TWRK (Total number of workers)	(Continuous) total workers during Covid-19 year
SAVE (Savings of the entrepreneur)	(Dummy) Yes=1, No=0
ESTB (Type of establishment)	(Dummy) Permanent=1, Temporary=0
OWNE (Type of ownership)	(Dummy) Family owned enterprise=1, otherwise=0

Table 7.5: Model fit statistics.

Log likelihood	388.553
X2	28.288*
(df)	7
Nagelkerke R square	0.102
Overall predicted accuracy	82%

*Significant at 1 per cent level of significance

Note: Hosmer-Lemeshow test [$\chi^2=4.427$

(non-significant) ($p > 0.05$)] shows that the model is a good fit

The results of the regression model are shown in Table 7.6. The regression equation is written as:

$$\text{Ln (odds large impact)} = -0.335 + 0.565\text{SAVE} + 1.135\text{FINA} + 0.027\text{TWRK} + 0.898\text{OWNE} - 0.132\text{ESTB} + 0.234\text{GNDR} + 0.484\text{ALTI}$$

Table 7.6: Results of the logit regression model.

	B	S.E.	Wald	df	Sig.	Exp(B)
SAVE(1)	.565	.278	4.136	1	0.042*	1.760
FINA(1)	1.135	.329	11.918	1	0.001**	3.112
TWRK	.027	.101	.070	1	0.792	1.027
OWNE(1)	.898	.335	7.187	1	0.007**	2.454
ESTB(1)	-.132	.288	.211	1	0.646	.876
GNDR(1)	.234	.287	.666	1	0.415	1.264
ALTI(1)	.487	.267	3.322	1	0.068	1.628
Constant	-.335	.487	.472	1	0.492	.715

P<0.01**

P<0.05*

Here, the last category (coded 1) has been taken as the reference category for the categorical variables. The findings indicate that SAVE (B=0.565) and FINA (B=1.135) are positive and significant in explaining the likelihood of enterprises enduring a large impact. This implies that entrepreneurs with no accumulated savings and enterprises

which did not receive any financial aid are 1.76 times and 3.112 times more likely to be affected by a large extent respectively. However, our main variable of interest is the type of ownership (OWNE). The odds ratio of 2.45 reveals that enterprises which are not family based are 2.45 times more likely to be impacted to a large extent. The above findings go in accordance with what literature has suggested, that families can act as strong social institutions and agents to meet their social needs (UNICEF, 2018). It can be concluded that the pandemic highlighted the importance of family as a vital institution in coping with the crisis better in the informal sector world.

Challenges and Issues Faced During and After the Lockdown: Excerpts from the Qualitative Analysis

At the time of writing, the ongoing crisis has shown how the labour market is in a state of flux due to the uncertainties of demand and supply fluctuations. In the following section, the study attempts to produce a qualitative analysis of the data to understand how in their own small ways the enterprises played a seminal role in promoting community cohesion, skills exchange and building sustainable practices.

Coping up strategies: due to lack of income protection, several respondents resorted to other forms of employment which ranged from street vending and driving rickshaws to delivering fast food goods (Figure 7.2). Since the labour market is composed of both migrant and local workers, some went to their village to engage in farming. Due to the rise in demand for protective masks, there were many who used this opportunity as a coping strategy to overcome the crisis. The enterprises were engaged in manufacturing a wide variety of masks such as masks made from traditional Assamese *Gamocha*³ to surgical masks. It was sold between the range of Rs 10 and Rs 15 per piece depending on the thickness of the layering.

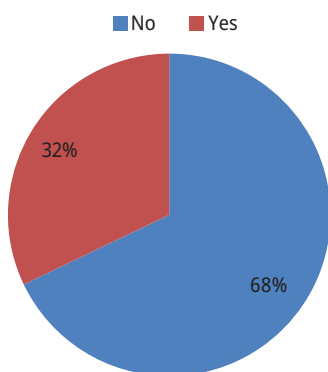


Figure 7.2: Whether respondents looked for other alternative opportunities.
Source: field data.

³ Traditional cloth material generally used as a towel.

Problems encountered: the fact that many of them were planning to close down their units because of non-payment of bills shows the precarious nature of their employment. More than 50 per cent of respondents also complained that their units were infested by rodents during the lockdown, so they had to spend extra from their savings to undertake repairs. Their worries were exacerbated by the fact that after the lockdown the customers sometimes forced them to charge less for the orders and, with the limited orders they got, they were compelled to abide by it in the fear of not losing customers. Added to that, due to low consumer demand, most of them were earning by taking part time orders from other shops. For men, who were single bread winners of the family, doing part time work was more of a compulsion than a choice since the earnings were not enough to support their families.

Source of credit: getting access to financial sources was quite a challenge for most of the respondents. It was observed that around 58.8 per cent of respondents had received some kind of financial help and, among them, 8.7 per cent took help from government institutions and 14.1 per cent got help from private institutions (Figure 7.3). However, 77.2 per cent mostly resorted to informal sources of borrowing from family and friends. This also includes the women who got credit from self-help groups such as SEWA and other *Mahila*⁴ committees operating near their homes.

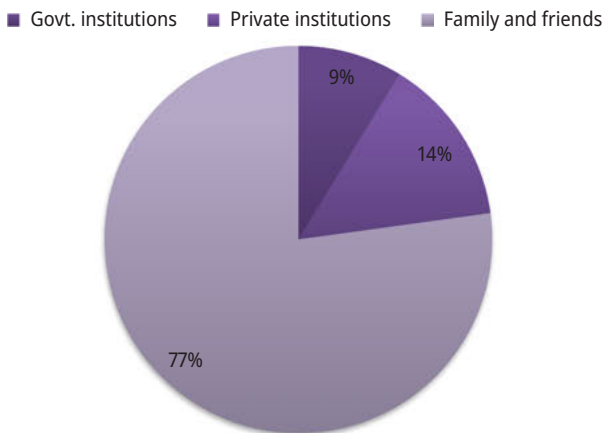


Figure 7.3: Source of financial aid.
Source: field data.

Productive use of time: during lockdown, some women respondents revealed that they utilised their time in designing their own garments from home. One of the respondents, Minoti Devi from *Lichubari* area, started her own YouTube channel where

⁴ Women.

she taught sewing and cutting techniques for making intricate designs. Several others have used the leftover raw clothing materials to make decorative masks and bags out of it. The economic uncertainties have also pushed some of the enterprises to adjust to the new normal by promoting their products through the use of social media and providing options for digital payment methods.

The following are some snippets of the conversations with the workers taken during the course of the field work. Working in a small cramped up unit, one of the respondents said, “After the lockdown, we get no orders but we keep the shop open in the hope to get some money to feed the family. Our house rent hasn’t been reduced either. We are planning to go back to our village. I tried selling vegetables on the streets in the evenings but was harassed by the policemen, since I didn’t have any designated workplace. My husband works in the furniture store, but lately he hasn’t got any work either. My son was enrolled in a private school before the COVID-19 crisis but due to shortage of money; we shifted him to a Govt. School” (Rashida Begum, 26).

For another respondent, who owns her own tailoring unit, the extra source of money she was getting was by selling fruits in the market area. She also had set up a small kitchen near her house where she and her friends cooked and delivered food to those in quarantine: “The only fund support I received was from the women self-help groups operating nearby my house” (Mamta Begum, 45).

The problems echo several others working in this industry although the intensity may differ. For another respondent the brunt of the crisis has left her family in distress: “I have still not paid my rent dues along with the money I have borrowed from my friends. The only orders I got during the lockdown was to make 2000 masks for a Jorhat Tea company, where the raw materials were sent to us and the masks were made from my home” (Aklima Fatima, 30).

The following important excerpts have been enumerated from the given analysis. Firstly, it is clear that the economic uncertainties that have emerged from the crisis have unfortunately brought their production operations to a halt.

Secondly, there is no doubt that access to online communication networks has always been limited for informal enterprises; however, our findings suggest that the pandemic has impelled these enterprises to adapt to the new normal by incorporating digital resources. This shift to a digital transformation will be a welcoming move to ensure economic and social sustainability. The dependence on digital platforms, such as social networking sites, as a need to fulfil their objectives can create better entrepreneurial participation to reach a wider audience.

These findings corroborate with the hypothesis that economic and environmental sustainability practices in terms of coping strategies are seen as the crucial plan of action among informal apparel manufacturing enterprises during the COVID-19 crisis. Additionally, our results from both the quantitative and qualitative analysis support the hypothesis that during economic uncertainties like the COVID-19 crisis, social sustainability becomes more critical for the existence and continuity of informal apparel manufacturing enterprises.

Entrepreneurs' Response to Support Mechanisms Required during COVID- 19

Given the fact that the economic repercussions of the pandemic are continuing, the following section attempts to investigate the kind of support mechanisms envisaged by entrepreneurs in times of distress. The purpose of this analysis is to understand the barriers to the growth of their enterprises during COVID-19 and, in that context, the support required during crises from the subjective perspective and experiences of the entrepreneurs. The results from the findings are measured on a 5-point Likert scale ranging from most important to least important (Figure 7.4).

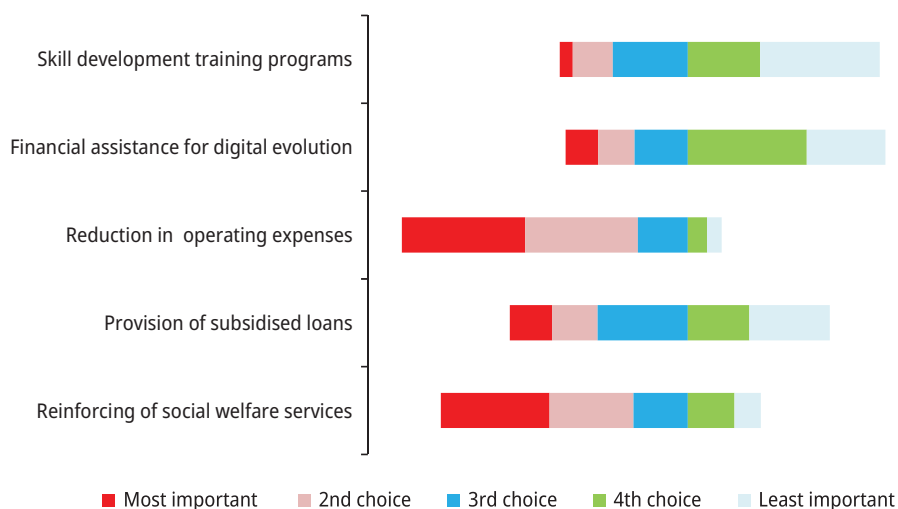


Figure 7.4: Kind of support mechanisms required during the crisis.

Source: field data.

The findings indicate that the highest priority has been given to support for the reduction in enterprises' operating expenses and the reinforcing of social welfare services. For the former, 39 per cent and 35 per cent of respondents have opined it to be the most important and second most important choice, respectively. For the latter, 34 per cent of respondents have considered strengthening social welfare measures to be of utmost importance. Let us look into the other support mechanisms, such as the necessity for subsidized loans. Although 13 per cent have opined it to be most important, a higher percentage of respondents (25 per cent) have placed it as least important. In the case of training programs for skill development, only a small percentage of respondents (4 per cent) have prioritised it highly; around 37 per cent have regarded it to be least important. Furthermore, the majority of respondents have not consid-

ered support in the form of financial assistance for digital transformation as the most important: around 25 per cent have considered it the least important.

The important takeaways from the above findings are that support channels in the form of provision of social safety nets and policy support measures to reduce operating costs have been regarded highly as compared to public assistance programs for digital evolution and skill development. For the latter, respondents have put forward their opinion that taking loans creates a constant burden and pressure for them to repay back on time. Moreover, they believe skill-based training in their own enterprise adds more productivity to the workers rather than getting engaged in training programs that other institutions offer. Also, although a leap towards digital transformation is of prime importance during these times, respondents have opined that financial support for it may not be necessary to combat the crisis compared to the rest of the support mechanisms.

Conclusion

This chapter reflected on the perceived impact of COVID-19 on informal apparel enterprises contextualising with respect to the adoption of sustainability practices. The analysis gave valuable insights into how informal apparel manufacturing enterprises strategised themselves in their small ways by employing different sustainable measures to alleviate their hardships to some extent. Building on the findings from a mixed method research approach, the chapter concludes that sustainable practices have become essential in the functioning of these informal apparel manufacturing enterprises with the onset of the crisis.

At a junction when discussions on the informal sector's unrealised capability to exhibit sustainable development have gained ground, one also needs to consider how sustainable the path to recovery is thereafter, mainly how better sustainability practices can be attained. The excerpts of conversations with the informal workers showed that COVID-19 had escalated the challenges of the apparel workers. The findings also indicated that the need to reinforce social safety nets and policies to address higher operating costs of enterprises occupies a higher priority than other support mechanisms. This makes us ponder whether the informal sector continues to be at the apathy of the government schemes.

It is essential to understand that social safety nets are one kind of arrangement of social sustainability in terms of taking care of children's educational needs by sponsoring their education and providing affordable housing, amongst others. We can see the importance of the social safety dimension when it comes to the growth and continuity of apparel enterprises. Taking this into consideration, the chapter concludes that the state support mechanisms to provide social security protection to informal workers in times of crisis are lacking on many fronts. Therefore, a pivot towards a more robust and inclusive social security program must be introduced, such as through income support in the form of direct cash transfers to people who have closed their enterprises or are on the verge of closing down due to the inability to pay

rent and electricity bills. Also, affordable housing should be made available for those who have seen a significant drop in their savings and decided to return to their villages as they cannot manage household expenses. There is also the need for fee waivers for parents struggling to meet school expenses for their children.

Furthermore, the results from the study propose that the three pillars of sustainability are positively associated with overcoming COVID-led disruptions. In that sense, the informal sector, predominantly understood as a barrier to growth and development, should be instead considered as an asset that needs to be harnessed further. The participation of leading stakeholders and support from the policymakers is crucial in this regard. A more cohesive approach that brings into its fold measures to strengthen community relations, incorporate sustainable ways of production, employ economical sustainable practices to the maximum limit and develop families as strong social institutions to achieve sustainable goals is the present need.

The chapter hopes to shed light on the positive contributions of sustainable practices undertaken among informal apparel manufacturing enterprises. It opens avenues for future advances in research and academic discourses related to COVID-19-led sustainability practices at the forefront. With this in mind, the need to further explore the informal sector's potential towards reaching sustainable development goals will be a welcoming change.

Appendix

Table 7.7: Tolerance and VIF between the independent variables.

Variables	Tolerance	VIF
SAVE	.861	1.161
FINA	.869	1.150
TWORK	.761	1.313
OWNE	.972	1.029
ESTB	.882	1.133
GNDR	.888	1.127
ALTI	.963	1.038

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