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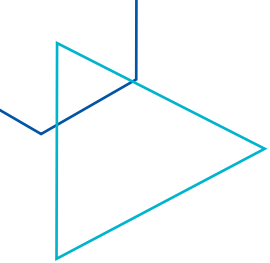
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HIGHLIGHTS REPORT: THIRD WAVE AUGUST 2021

Rapid Labour Force Survey of COVID-19 Impact in Morocco

Published in January 2022



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Key findings

Key Findings

- This report complements the household survey analysis by looking at the key findings from the data collected on small and medium enterprises in Morocco. It summarizes the main indicators that showed a noticeable change between the first three waves. Wave 3 was conducted in August 2021. More than half of the firms surveyed in Morocco operated in services and food and accommodation (31 and 29 per cent, respectively), while 17 per cent were in trade and retail and 10 per cent were in construction. Nearly 15 per cent of the firms surveyed in Morocco operated in manufacturing and agriculture.
- Across all economic activities, the mean number of all workers increased slightly between February 2020 and the time of the interview for the first wave (from 26.5 to 26.8). This average then decreased to 23.8 in the second wave, to increase again to above the pre-pandemic levels of 27.4 workers. For all types of workers, the largest increase in the mean is from firms in construction, from 30.7 to 40.7 workers. The only economic activity with a decline was manufacturing and agriculture, from 43.5 in wave 1 to 35.7 in wave 2 and then 30.7 workers in wave 3.
- In terms of definite duration contract workers in the first wave, most of the increase in the average number came from firms in services, reporting 13 workers in wave 2 and 16.3 in wave 3. The survey findings show that firms in manufacturing and agriculture were the most to reduce the number of indefinite duration contract workers on average, from 21.2 to 9.3 workers between waves 2 and 3. The trend is similar for definite duration contract workers. Firms in manufacturing and agriculture also reported a decline from 9.6 to 7.6 between waves 2 and 3. Notably, the mean number of definite duration contract workers in the trade and retail sector has been steadily increasing, from 0.8 in February 2020 in wave 1 to 1.2 in wave 2 and 3 in the third. More alarmingly is the large increase in no contract workers in manufacturing and agriculture, increasing from 4.6 in wave 2 to 13.8 during the third.
- Nearly one-quarter of the first wave surveyed firms in Morocco in the either imported or exported in 2019, compared to 21.8 per cent in the second wave, further declining to 17.8 per cent during the third. The economic sector with the highest mean share of importing and/or exporting firms (traders) in the second wave was manufacturing and agriculture (62.2 per cent of firms), compared to only 29.8 in the third. The most trading sector in the third wave was trade and retail (37.4 per cent of firms).
- Most of the firms surveyed in Morocco reported adopting no coping strategy (72 per cent) in the first wave, compared to 62 per cent in the second, rising again to 66 per cent in the third. While only 23 per cent reported contracting bank credit in the first wave compared to 19 per cent in the second and declining further to 14 per cent in the third. In the third wave, more firms adapted to the pandemic by receiving aid from friends and family, increasing from 3 per cent in the first wave to 10 per cent in the second and 12 per cent in the third. Also, less firms purchased on credit or advances during the third wave, declining from 17 per cent in the second wave to 11 per cent in the third.

Introduction

This report complements the household survey analysis by looking at the key findings from the data collected on small and medium enterprises in Morocco. It summarizes the main indicators that showed a noticeable change between the first three waves.

Table 2.1 below shows the distribution of the firms (number of firms) surveyed by wave, size and economic activity with row percentages in parenthesis¹.

► **Table 2-1:** Sample distribution by firm size and economic activity

Firm size			Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Wave 1	6-9 workers	Feb-20	2 (1.5)	19 (16)	15 (12.2)	44 (36.3)	41 (34.1)	122 (100)
		Current	1 (1)	19 (15.5)	12 (10)	46 (38.1)	42 (35.4)	120 (100)
	10-24 workers	Feb-20	6 (3.1)	42 (20.3)	30 (14.5)	58 (28.1)	70 (33.9)	206 (100)
		Current	7 (3.4)	42 (20.1)	33 (15.6)	58 (27.6)	70 (33.4)	209 (100)
	25-49 workers	Feb-20	10 (9.1)	21 (20.2)	12 (11.1)	14 (13.1)	49 (46.5)	105 (100)
		Current	10 (9.6)	19 (19.4)	10 (10.2)	13 (12.8)	48 (48)	99 (100)
	50+ workers	Feb-20	9 (13.1)	19 (28.2)	9 (13.3)	3 (5)	27 (40.4)	67 (100)
		Current	9 (12.4)	21 (30.3)	10 (14.7)	3 (4.2)	27 (38.4)	71 (100)
	Total	Feb-20	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
		Current	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)

¹ Figures in table 2.1 are weighted using firm weights.

Wave 2	6-9 workers	Feb-20	6 (3.4)	13 (7.2)	34 (19)	61 (34.5)	64 (36)	177 (100)
		Current	4 (3.3)	11 (8.2)	26 (20.2)	46 (35)	43 (33.2)	130 (100)
	10-24 workers	Feb-20	9 (4.8)	23 (12.5)	42 (22.6)	60 (32.6)	51 (27.5)	185 (100)
		Current	9 (4.2)	22 (10.4)	46 (22.1)	67 (31.8)	66 (31.6)	210 (100)
	25-49 workers	Feb-20	3 (3.1)	9 (11.5)	23 (27.4)	15 (17.8)	33 (40.2)	83 (100)
		Current	4 (4.6)	10 (10.9)	23 (25.4)	20 (22)	34 (37)	92 (100)
	50+ workers	Feb-20	7 (16.5)	9 (20.5)	6 (15.4)	12 (27.8)	8 (19.8)	42 (100)
		Current	7 (14.2)	11 (22.1)	8 (16.1)	13 (26.9)	10 (20.7)	48 (100)
	Total	Feb-20	24 (5)	54 (11.1)	105 (21.5)	148 (30.4)	156 (32.1)	487 (100)
		Current	24 (5.1)	53 (11.1)	104 (21.6)	145 (30.3)	153 (32)	480 (100)
Wave 3	6-9 workers	Feb-20	27 (16.4)	10 (6.2)	21 (12.7)	46 (27.6)	62 (37.1)	166 (100)
		Current	16 (13.9)	7 (6.5)	17 (15.5)	33 (28.9)	40 (35.2)	113 (100)
	10-24 workers	Feb-20	25 (14)	17 (9.4)	34 (18.8)	57 (32.2)	46 (25.6)	178 (100)
		Current	26 (12.8)	16 (7.9)	34 (17.1)	62 (31.3)	61 (30.9)	199 (100)
	25-49 workers	Feb-20	11 (13.6)	7 (8.2)	17 (20.8)	18 (22.1)	29 (35.2)	83 (100)
		Current	17 (19.4)	6 (6.7)	14 (16.4)	23 (26.8)	27 (30.7)	87 (100)
	50+ workers	Feb-20	9 (17.1)	11 (22)	8 (16.4)	12 (23.2)	11 (21.3)	50 (100)
		Current	12 (19.2)	14 (20.8)	10 (15.1)	15 (22.6)	14 (22.2)	65 (100)
	Total	Feb-20	72 (15.1)	45 (9.4)	80 (16.8)	133 (27.9)	147 (30.8)	478 (100)
		Current	71 (15.2)	42 (9.1)	76 (16.3)	133 (28.7)	142 (30.7)	463 (100)

Source: Constructed by author using the ILO/ ERF COVID-19 Monitor

The third wave was conducted by phone on firms with 6 to 199 workers before the pandemic (i.e. before February 2020). In Morocco, the sample was randomly drawn using Yellow Pages². The stratification was done using three regions, namely: Casa-Rabat, North, and South³. As there is no efficient digital copy of the Yellow Pages available in Morocco, a hard copy was used. A random page within each stratum is selected, and then a random firm on that page is selected (without replacement). The number of firms on the page was recorded and incorporated into the inverse probability weights.

The sample was restricted to firms with 6 to 199 workers in February 2020, based on an eligibility question during the phone interview. Up to three attempts were made to ensure response if a phone number was not picked up/answered, was disconnected or busy, or picked up but could not complete the interview at that time. After the third failed attempt, a firm was treated as a non-response and a random firm from the same stratum was used as an alternate.

Table 2.2 below shows the response rates by response type. The panel columns show the rates among firms who consented to a follow-up. Phones that were not in service, disconnected/busy (after multiple calls) and firms who were not eligible are excluded from the response rate calculations. The refresher column shows response rates among the newly added firms to the sample. The responses are based on the final result, which may have been obtained on the first, second, or third attempt.

► **Table 2-2:** Firm response rates by response (%)

	Wave 1	Wave 2 - Refresher	Wave 2 - Panel	Wave 3 - Refresher	Wave 3 – Panel
Phone disconnected/busy	2	8	6	1	2
Not in service	41	15	2	38	0
Did not answer	10	11	24	1	9
Picked up and refused	8	35	32	19	35
Incomplete, and refused	3	1	6	2	4
Incomplete, return call	0	0	4	0	0
Complete	17	19	26	17	51
Not Eligible	20	11	0	23	0
Total	100	100	100	100	100
Response rate	45	29	28	45	51

The data presented in this report has been weighted to ensure the basic characteristics of the sample reflect the underlying universe of firms. An inverse probability weighting was used to weight the firms' sample in Morocco to account for non-response rates and the sampling strategy, the weights are then normalized to have a mean of one⁴.

The following section summarizes the main findings from the firms' data, section 3 presents the analysis of firm characteristics, firm survival, and coping strategies. Section 4 presents stylized facts on employment for firms in Morocco.

² Can be accessed at <https://www.yellowpages.com.eg/en>.

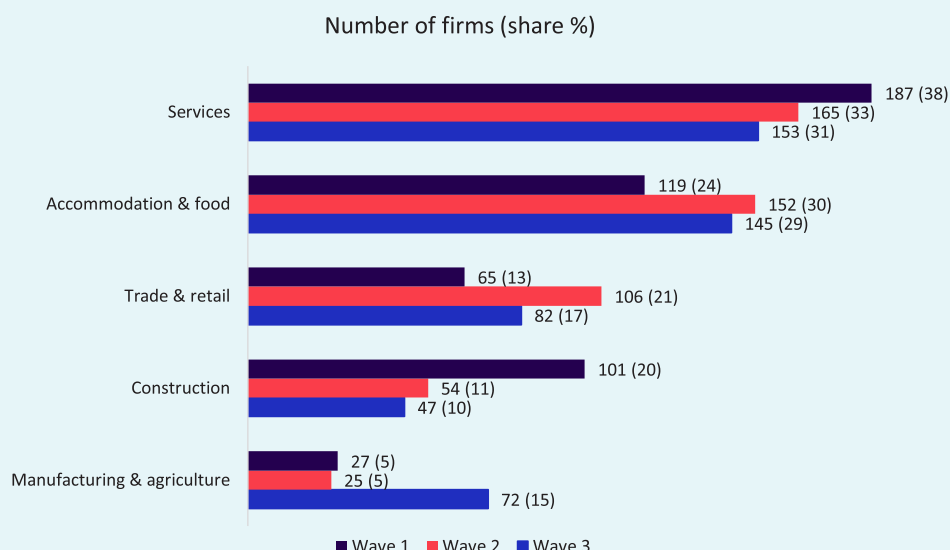
³ See ERF sample and weighting technical documentation for more details.

⁴ The weights used cannot overcome the unobservable characteristics of firms and their respective non-response bias. The weighting of the firms' data is discussed in further detail in the appendix of this report.

Firm characteristics, survival, and coping strategies

As shown in figure 3.1, the distribution of the 500 surveyed firms in the third wave is based on aggregated economic activities due to the low variation at a disaggregated level (given the sample size). It shows how the distribution of firms by economic activity and size did not vary between the three waves. A large part of SMEs in Morocco still operates in services and food and accommodation (31 and 29 per cent, respectively), while 17 per cent were in trade and retail and 10 per cent were in construction.

► **Figure 3-1:** Share of firms by economic activity



Source: Constructed by author using the ILO/ ERF COVID-19 Monitor

Looking at the total number of workers by economic activity before and after the pandemic shows a holistic view of how firms and workers were impacted. Table 3.1 shows the impact of the pandemic on firms for different types of employment, from the most stable type of employment (indefinite duration contract workers) to the least (unpaid workers), to other types of employment such as definite duration contract workers and workers without contracts. Table 3.1 also provides more detailed summary statistics on the impact of COVID-19 on firms and workers.

In the survey, firms were only asked to report on the number of unpaid workers in February 2020. Across all economic activities, the mean number of all workers increased slightly between February 2020 and the time of the interview for the first wave (from 26.5 to 26.8). This average number then decreased to 23.8 in the second wave to increase again to above the pre-pandemic levels of 27.4 workers on average.

The largest increase in the mean number of workers is observed in the construction sector from 30.7 in wave 2 to 40.7 in wave 3. The only economic activity with a decline was manufacturing and agriculture from 43.5 in wave 1 to 35.7 in wave 2 and then 30.7 workers in the third.

In terms of definite duration contract workers in the first wave, firms in services witnessed the highest increase in the average number of definite duration contract workers reporting 13 workers in wave 2 and 16.3 in wave 3. The survey findings show that firms in manufacturing and agriculture were the most to reduce the number of indefinite duration contract workers on average, from 21.2 to 9.3 workers between waves 2 and 3.

The trend is similar for definite duration contract workers. Firms in manufacturing and agriculture also reported a decline from 9.6 to 7.6 between waves 2 and 3. Notably, the mean number of definite duration contract workers in the trade and retail sector has been steadily increasing, from 0.8 in February 2020 in wave 1 to 1.2 in wave 2 and 3 in the third wave. More alarmingly, a large increase is observed in workers with no contract in manufacturing and agriculture, increasing from 4.6 in wave 2 to 13.8 during the third.

► **Table 3-1:** Workers by employment type and activity

			Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Total workers	Mean	Feb-20	42.5	31	22.1	15	30.6	26.5
		Wave 1	43.5	32.3	23	14.7	30.4	26.8
		Wave 2	35.7	30.7	21.3	23.1	22	23.8
		Wave 3	30.7	40.7	26.1	25.2	24.4	27.4
	Median	Feb-20	38	19	13	11	20	16
		Wave 1	38	20	14	10	20	16
		Wave 2	20	16	15	13	14	14
		Wave 3	20	20	17	14	14	15
	Sd	Feb-20	28.8	31.4	20.1	12.8	35.1	29.1
		Wave 1	31.4	32.4	20.4	12.3	35.4	29.7
		Wave 2	35.7	35.1	20.4	30.8	25.7	28.2
		Wave 3	34.1	44.1	29.8	32	28.2	32.4

Indefinite duration contract workers	Mean	Feb-20	29.4	21.5	18.3	11.3	19.2	18.2
		Wave 1	30.4	22.1	19.2	11	18.7	18.3
		Wave 2	21.2	19	13.7	11.9	13	13.9
		Wave 3	9.3	19.7	16.6	11.2	16.3	14.2
	Median	Feb-20	20	13	12	8	12	10
		Wave 1	20	13	12	8	12	10
		Wave 2	7	11	8	7	9	8
		Wave 3	0	12	10	6	7	6
	Sd	Feb-20	25.2	24.7	20.8	11.8	21.3	20.8
		Wave 1	26.2	25.6	21.2	11.4	21.5	21.3
		Wave 2	27.3	23.9	20.5	20.3	17.8	20.5
		Wave 3	16.6	25.2	26.7	20	28.8	24.3
Definite duration contract workers	Mean	Feb-20	6.3	7	0.8	1.2	6.6	4.6
		Wave 1	6.7	7.5	0.8	1.2	6.9	4.9
		Wave 2	9.6	7.3	1.2	3.8	3.9	4
		Wave 3	7.6	14.6	3	6.4	3.5	5.9
	Median	Feb-20	0	0	0	0	0	0
		Wave 1	0	0	0	0	0	0
		Wave 2	0	0	0	0	0	0
		Wave 3	0	0	0	0	0	0
	Sd	Feb-20	14.3	20.7	2.6	4.6	23.6	17.8
		Wave 1	14.2	21.1	2.6	4.6	23.9	18.1
		Wave 2	19.6	18.6	3	12.9	11.3	12.4
		Wave 3	23.8	30	12.1	16.2	7.9	17.2

No contract workers	Mean	Feb-20	3.3	1.4	2.3	0.4	1.4	1.4
		Wave 1	2.9	1.6	2.4	0.4	1.3	1.4
		Wave 2	4.6	4	5.9	6.5	3.1	4.9
		Wave 3	13.8	5	6.2	7.6	3.9	6.9
	Median	Feb-20	0	0	0	0	0	0
		Wave 1	0	0	0	0	0	0
		Wave 2	0	0	0	0	0	0
		Wave 3	6	0	0	0	0	0
	Sd	Feb-20	11.9	5.2	5.4	1.2	3.8	4.8
		Wave 1	11.5	5.5	5.4	1.2	3.6	4.7
		Wave 2	10.1	9	12.1	17.8	6.3	12.5
		Wave 3	24.8	9.7	12.9	17.4	7.6	15.5
Unpaid workers	Mean	Feb-20	3.5	1.1	0.6	2.1	3.4	2.3
	Median	Feb-20	0	0	0	0	0	0
	Sd	Feb-20	10	6.5	2.3	3.9	12.3	8.7

Source: Constructed by author using the ILO/ ERF COVID-19 Monitor.

Table 3.2 shows other firms' characteristics, including the percentage of firms who import and/ or export (traders), the share of firms that are foreign owned (partially or fully), the size of foreign ownership, whether the firm keeps inventory or not and the number of inventory days kept by economic activity.



► **Table 3-2:** Foreign ownership and inventory status

			Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Traders (%)	Wave 1	Mean	74.5	37.4	63.9	0.4	13.7	25.2
		Sd	44.3	48.6	48.4	6.6	34.5	43.4
	Wave 2	Mean	62.2	27.9	41.3	7.3	14.5	21.8
		Sd	49.3	45.2	49.5	26	35.4	41.3
	Wave 3	Mean	29.8	24.9	37.4	4.6	11.9	17.8
		Sd	46.1	43.7	48.7	21	32.5	38.3
Foreign owned (%)	Wave 1	Mean	15.6	3.7	13.5	21.1	8.3	11.5
		Sd	36.8	19	34.5	41	27.7	31.9
	Wave 2	Mean	5.1	6.7	6.9	14.2	7.2	9.1
		Sd	22.4	25.1	25.4	35	26	28.8
	Wave 3	Mean	8.2	4	7.4	14.8	3.7	8.2
		Sd	27.6	19.7	26.4	35.6	19	27.5
Size of foreign ownership (%)	Wave 1	Mean	88.4	62.5	92.8	90.3	75.4	83.9
		Median	100	50	100	100	100	100
		Sd	25.9	31.7	21.8	22.5	33	27.1
	Wave 2	Mean	18.4	44.1	63.8	83.8	73.7	71.3
		Median	1	25	50	100	100	100
		Sd	46.2	44.3	36.3	25.3	38.8	35.9
	Wave 3	Mean	55.5	47	72.6	84.2	100	79.4
		Median	50	5	100	100	100	100
Keeps inventory (%)	Wave 1	Sd	39.5	66.7	37	28.8	0	33
		Mean	52.3	45.2	51.2	4	12.2	24.1
	Wave 2	Sd	50.7	50	50.4	19.6	32.8	42.8
		Mean	36.6	24	20.3	12.4	10.9	16
	Wave 3	Sd	49	43.1	40.4	33.1	31.2	36.7
		Mean	54.1	24.8	43.4	20.2	28.5	31.9
		Sd	50.2	43.6	49.9	40.3	45.3	46.7

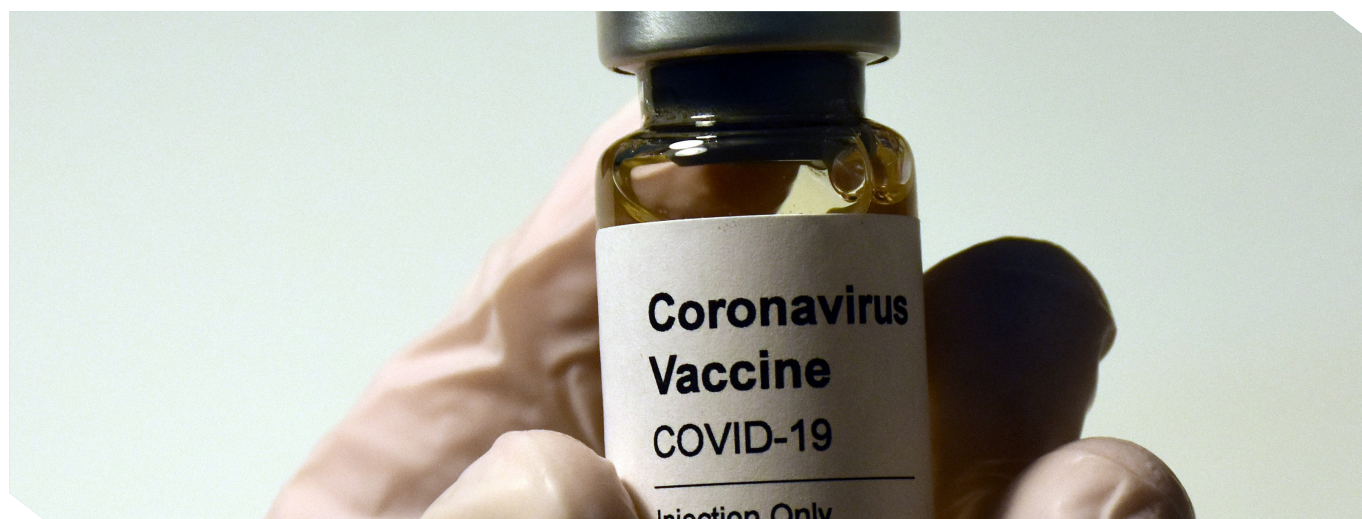
Number of inventory days	Wave 1	Mean	111.7	100.9	72.8	22.3	84.3	88.2
		Median	60	30	40	15	30	30
		Sd	135.5	147.5	93.8	23.5	168.4	134.4
	Wave 2	Mean	39.1	104	91.7	188.9	131.5	99.9
		Median	30	30	30	60	7	30
		Sd	19.5	142.1	141.5	213.1	178.6	138.1
	Wave 3	Mean	115.2	79.8	95.6	16	38	72.7
		Median	60	30	60	7	30	30
		Sd	131.6	121.6	116.6	20.9	25.2	104.8

Source: Constructed by author using the ILO/ ERF COVID-19 Monitor

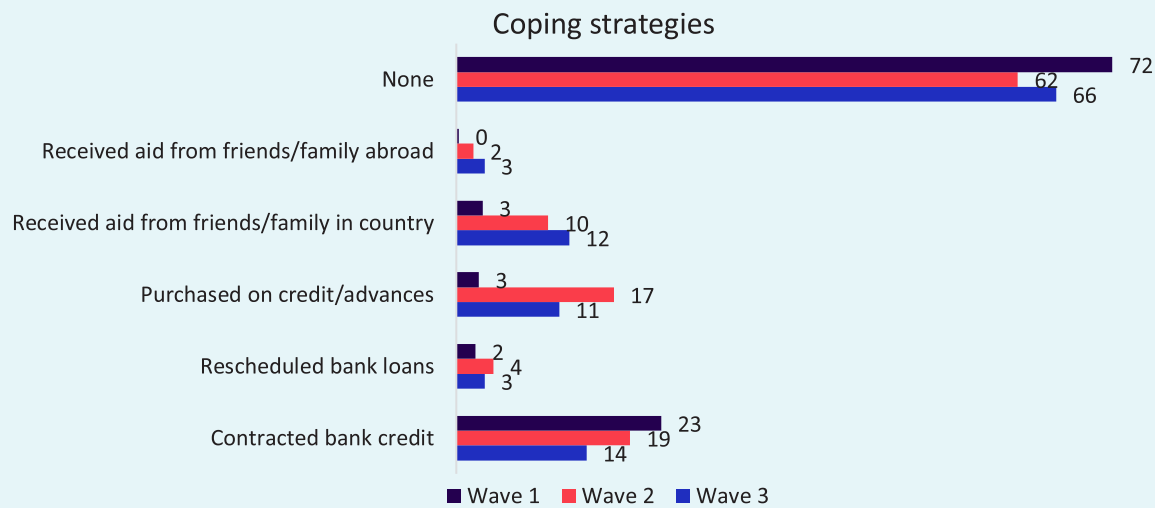
Nearly one-quarter of the firms surveyed in the first wave either imported or exported in 2019, compared to 21.8 per cent in the second wave, further declining to 17.8 percent during the third wave. The economic sector with the highest mean share of importing and/or exporting firms (traders) was manufacturing and agriculture during the second wave, where nearly 62.2 percent of firms were traders (compared to only 29.8 in the third wave). In the third wave, the most trading sector was trade and retail, where 37.4 per cent of firms imported or exported. The least trading sector in the third wave was food and accommodation, where on average, only 4.6 per cent of the firms surveyed traded (declining from 7.3 per cent in the second wave).

Foreign ownership of SMEs surveyed in Morocco did not change much between the three waves. Slightly declining from 11.5 per cent of all firms in the first wave to 9.1 in the second wave and 8.2 per cent in the third. In the third wave, the sector with the highest average foreign-owned share of firms is food and accommodation, with 14.8 firms in the sector being partially or fully owned by a foreign entity/investor(s). The average size of foreign ownership in SME's operating in food and accommodation remained nearly the same.

Firms differed by their response to the pandemic and adopted different coping strategies based on the business models, economic activities and types, and employment size offered. Figure 3.2 below shows the share of firms adopting different coping strategies. Firms were allowed to have multiple responses.



► **Figure 3-2:** Firms' coping strategies



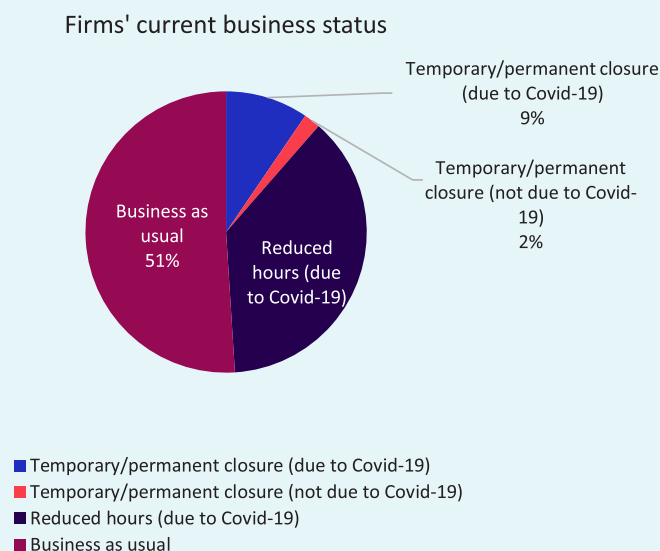
Source: Constructed by author using the ILO/ ERF COVID-19 Monitor

Most of the surveyed firms reported adopting no coping strategy (72 per cent) in the first wave, compared to 62 per cent in the second, rising again to 66 per cent in the third. Twenty-three per cent reported contracting bank credit in the first wave, compared to 19 per cent in the second, and declining further to 14 per cent in the third. In the third wave, more firms received aid from friends and family, increasing from 3 per cent in the first wave to 10 per cent in the second to 12 per cent in the third. Also, fewer firms during the third wave purchased on the basis of on credit or advances, declining from 17 per cent in the second wave to 11 per cent in the third.

Figure 3.3 below shows the business status of firms at the time of the interview. Fifty-one per cent of firms surveyed in the third wave reported continuing business as usual (table 3.3 below), most of which were operating in services and trade and retail. Out of the firms that experienced disruptions due to the pandemic, most reported reducing hours as a change to their current business status, and 9 per cent reported temporarily or permanently closing down due to the pandemic.



► **Figure 3-3:** Current business status



Source: Constructed by author using the ILO/ ERF COVID-19 Monitor

Table 3.3 below shows the breakdown of the business status responses by economic activity. Out 188 firms reporting a reduction in the number of working hours, 44 per cent were operating in accommodation and food, 20 per cent were in services, and 17 were in manufacture and agriculture.

► **Table 3-3:** Business status by economic activity

Number of firms (share, %)	Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Temporary/permanent closure (due to Covid-19)	4 (7.9)	3 (5.6)	5 (9.7)	23 (48.6)	13 (28.3)	47 (100)
Temporary/permanent closure (not due to Covid-19)	4 (38.9)	0 (0)	2 (20.1)	0 (0)	4 (41.1)	10 (100)
Reduced hours (due to Covid-19)	32 (17.1)	10 (5.6)	25 (13.1)	82 (43.9)	38 (20.3)	188 (100)
Business as usual	33 (12.9)	34 (13.5)	51 (20.1)	39 (15.5)	97 (38.1)	255 (100)
Do not know	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)	1 (100)
Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)

Source: Constructed by author using the ILO/ ERF COVID-19 Monitor

Table 3.4 shows the detailed breakdown for the distribution of firms by business challenges and economic activity. The most-reported challenge faced by businesses in Morocco in all three waves was the loss in demand (61 per cent) in wave 1, 73 per cent in wave 2, and 53 per cent in wave 3. Most of the firms reporting loss of demand operated in services, food and accommodation, followed by firms in trade and retail.

The next most frequent business challenge was the availability of inputs and their prices, followed by mobility restrictions in accessing customers.

► **Table 3-4:** Business challenges by economic activity

Business challenge		Number of firms (share, %)	Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Difficulties in accessing customers mobility restrictions	Wave 1	Not Mentioned	10 (4.8)	40 (18.4)	19 (8.7)	37 (17.3)	109 (50.8)	214 (100)
		Mentioned	16 (5.7)	62 (21.7)	47 (16.3)	82 (28.8)	78 (27.4)	285 (100)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
	Wave 2	Not Mentioned	11 (4.6)	32 (12.9)	54 (21.7)	58 (23.5)	92 (37.3)	247 (100)
		Mentioned	13 (5.3)	22 (8.8)	52 (20.6)	94 (36.8)	73 (28.5)	254 (100)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
	Wave 3	Not Mentioned	43 (14.8)	37 (12.8)	50 (17.3)	67 (23.3)	92 (31.8)	290 (100)
		Mentioned	29 (14)	10 (4.9)	32 (15.4)	77 (36.9)	61 (28.9)	210 (100)
		Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)
Loss in demand due to other customer reasons	Wave 1	Not Mentioned	11 (5.7)	57 (29.1)	31 (15.6)	16 (7.9)	82 (41.6)	197 (100)
		Mentioned	15 (5.1)	44 (14.5)	34 (11.4)	103 (34.3)	105 (34.8)	302 (100)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
	Wave 2	Not Mentioned	10 (7.5)	25 (18)	27 (19.7)	23 (16.7)	52 (38)	137 (100)
		Mentioned	14 (4)	30 (8.1)	79 (21.7)	129 (35.3)	113 (30.9)	364 (100)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)

	Wave 3	Not Mentioned	27 (11.6)	28 (12)	34 (14.5)	69 (29.1)	77 (32.8)	235 (100)
		Mentioned	45 (17)	19 (7.2)	48 (18.2)	76 (28.9)	76 (28.7)	265 (100)
		Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)
Difficulties in accessing suppliers due to mobility restrictions	Wave 1	Not Mentioned	19 (5.1)	70 (18.9)	42 (11.3)	81 (21.6)	161 (43.1)	374 (100)
		Mentioned	8 (6)	31 (24.6)	23 (18.4)	38 (30.4)	26 (20.6)	125 (100)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
	Wave 2	Not Mentioned	13 (3.6)	41 (11)	76 (20.5)	113 (30.4)	128 (34.5)	371 (100)
		Mentioned	11 (8.8)	13 (10.4)	30 (22.9)	39 (29.9)	36 (28.1)	130 (100)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
	Wave 3	Not Mentioned	45 (11.7)	41 (10.7)	53 (13.8)	123 (32.2)	121 (31.6)	382 (100)
		Mentioned	28 (23.3)	7 (5.6)	30 (25.1)	22 (18.7)	32 (27.3)	118 (100)
		Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)
Reduction in the availability/ price increases for the main inputs	Wave 1	Not Mentioned	20 (4.6)	80 (18.6)	47 (10.9)	114 (26.4)	170 (39.5)	431 (100)
		Mentioned	7 (10)	21 (31.4)	18 (26.5)	5 (7.5)	17 (24.5)	68 (100)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
	Wave 2	Not Mentioned	7 (3.3)	17 (7.9)	42 (19.4)	68 (31.3)	82 (38.1)	217 (100)
		Mentioned	18 (6.2)	37 (13.1)	64 (22.5)	84 (29.4)	82 (28.9)	284 (100)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
	Wave 3	Not Mentioned	29 (10.7)	19 (7.1)	33 (12.4)	94 (35.2)	93 (34.6)	267 (100)
		Mentioned	44 (18.8)	28 (12.2)	49 (21.2)	51 (21.8)	60 (26)	233 (100)
		Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)

Difficulties with worker absenteeism	Wave 1	Not Mentioned	27 (5.5)	92 (19.1)	65 (13.4)	116 (24.1)	183 (37.9)	483 (100)
		Mentioned	0 (0)	9 (55)	0 (3.1)	3 (17.8)	4 (24.2)	16 (100)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
	Wave 2	Not Mentioned	20 (4.6)	47 (10.9)	96 (22)	131 (30.1)	141 (32.5)	434 (100)
		Mentioned	5 (7.4)	7 (10.6)	10 (15.5)	21 (31.4)	23 (35.1)	67 (100)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
	Wave 3	Not Mentioned	59 (14.5)	36 (8.7)	67 (16.2)	121 (29.4)	128 (31.2)	411 (100)
		Mentioned	13 (14.5)	12 (13)	16 (17.8)	24 (27)	25 (27.9)	89 (100)
		Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)
Difficulties tending to my business b/c care giving	Wave 1	Not Mentioned	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
		Mentioned	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
	Wave 2	Not Mentioned	23 (5.3)	43 (9.8)	98 (22.3)	136 (30.9)	139 (31.6)	439 (100)
		Mentioned	2 (2.6)	11 (17.9)	8 (12.7)	16 (25.4)	26 (41.4)	62 (100)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
	Wave 3	Not Mentioned	66 (14)	46 (9.8)	79 (16.8)	133 (28.2)	147 (31.3)	470 (100)
		Mentioned	7 (22.2)	1 (3.9)	4 (12)	12 (42)	6 (19.9)	30 (100)
		Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)
Other difficulty (specify)	Wave 1	Not Mentioned	27 (5.4)	99 (20)	65 (13.2)	119 (24)	184 (37.4)	493 (100)
		Mentioned	0 (0)	3 (48.2)	0 (0)	0 (7.4)	3 (44.4)	6 (100)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)

	Wave 2	Not Mentioned	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
		Mentioned	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
	Wave 3	Not Mentioned	71 (14.3)	47 (9.6)	82 (16.6)	144 (29)	151 (30.5)	495 (100)
		Mentioned	1 (29.5)	0 (0)	0 (0)	1 (26.9)	2 (43.6)	5 (100)
		Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)
No particular challenge	Wave 1	Not Mentioned	22 (5.3)	85 (20.6)	52 (12.6)	108 (26.3)	144 (35.1)	411 (100)
		Mentioned	5 (5.2)	17 (18.8)	14 (15.4)	11 (12.3)	43 (48.3)	88 (100)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
	Wave 2	Not Mentioned	21 (4.7)	46 (10.4)	97 (22.1)	140 (31.7)	138 (31.1)	442 (100)
		Mentioned	4 (6.9)	8 (14.1)	8 (14.3)	11 (19.1)	27 (45.6)	59 (100)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
	Wave 3	Not Mentioned	69 (16.5)	38 (9.1)	69 (16.5)	125 (29.9)	117 (28.1)	418 (100)
		Mentioned	3 (4)	9 (11.6)	14 (16.6)	20 (24.2)	36 (43.6)	82 (100)
		Total	72 (14.5)	47 (9.5)	82 (16.5)	145 (29)	153 (30.6)	500 (100)

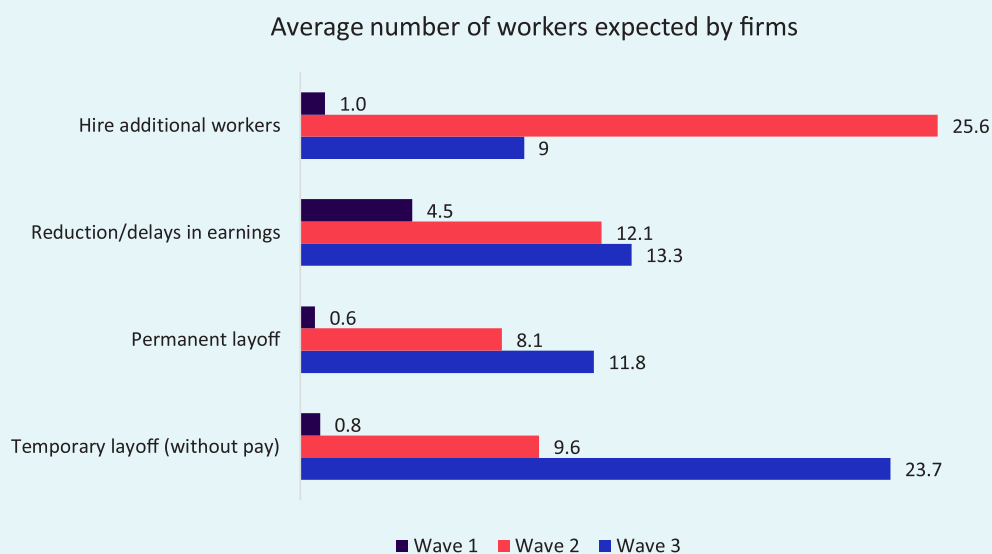
Source: Constructed by author using the ILO/ ERF COVID-19 Monitor



Employment

Firms were also asked about their workforce expectations for the next six months. Figure 4.1 shows firms planned hires, layoffs, or cuts or delays in wage payments, for the next six months. Overall, firms seemed less optimistic about hiring more workers in the third wave compared to the second wave. The average number of expected new hires had largely increased from 1 worker in the first wave to 25.6 in the second, to decline again to 9 new workers in the third wave. Firms also reported a large increase in their expected temporary layoffs, from just 0.8 workers in the first wave to 9.6 in the second and 23.7 in the third.

► **Figure 4-1:** Employment expectations



Source: Constructed by author using the ILO/ ERF COVID-19 Monitor

Appendix

Inverse probability weighting was undertaken to account for the sampling strategy and non-response. Weights had the following inputs:

- Total number, T , of firms in the stratum, s , in the sampling frame (T_s)
- Number, N , of firms in the stratum, s , successfully completed in the sample (N_s)
- Share of firms successfully contacted in the stratum that were eligible (e_s)

The weight for a firm, f , in stratum s is calculated as:

$$w_{(f,s)} = (T_s * e_s) / N_s$$

We adjust the total number of firms in the sampling frame to account for the fact that not all firms were eligible by multiplying the sample frame number of firms in the strata, T_s , by the fraction eligible among contacted firms, e_s . Weights are then normalized to have a mean of one. The resulting weight is the same for all firms that are in the same stratum. In Morocco the weight also accounts for the number of firms on the randomly selected page, N_p , as in:

$$w_{(f,s,p)} = (T_s * e_s * N_p) / N_s$$

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