

# GHANA **BUSINESS TRACKER** WAVE 4 Main Report





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**GHANA STATISTICAL SERVICE MARCH 2024** 







Funded by the European Commission under the Rapid Response Window – Sustainable Business for Africa (SB4A)

## **Ghana Business Tracker - Results from Wave 4**

The Ghana Business Tracker Survey was conducted between April 29 and July 9, 2023, by the Ghana Statistical Service, in collaboration with the World Bank, the European Union (EU), and the United Nations Development Programme (UNDP). The survey includes 3,157 firms and is the fourth wave of the Business Tracker Survey in Ghana. The third wave was conducted between September 1 and 30, 2021, following up on the second and first rounds conducted between May 26 and June 7, 2020, and August 15 and September 10, 2020, respectively. The Business Tracker Survey is part of a global Business Pulse Survey (BPS) effort by the World Bank and its partners to measure the impact of the pandemic and subsequent crises on private sector development.

The fourth wave of the Business Tracker Survey was modified to include more information on the impact of the economic and financial situation in Ghana on firms, the use of digital technologies in various business practices, the adoption of green practices, and the impacts on firms that have multinational links and those that trade with multinational firms or that export.

### **Key Highlights**

- **Continued vulnerabilities.** Although most firms have recovered from the pandemic and have fully reopened, sales figures remain vulnerable. Medium-size firms, particularly in the accommodation and food services sector, exhibited the most substantial sales growth, with a notable 12 percent increase in 2022 compared to 2021. Formal firms outperformed informal sectors, experiencing over twice the increase in sales in 2022 compared to 2021. However, within the formal sector, the sales distribution was more uneven.
- **Employment.** The share of firms reporting that they hired workers or laid off workers increased compared to the previous survey, with 5 percent of firms indicating hiring and 8 percent of firms indicating layoffs.
- **Digital adoption.** The share of firms adopting digital technologies, such as mobile money, increased since the beginning of the pandemic, although the adoption rates have stabilized since the previous survey. There are large differences between small and large firms in the degree of adopting technologies.
- **Green practices.** Few firms report using energy-efficient practices and roughly two-thirds of firms do not have a target for energy saving. The main constraint reported is lack of capacity, information, and funds.
- **Outlook.** Although sales projections have improved compared to the first two waves, there remains considerable uncertainty about sales developments going forward.
- **Challenges.** A significant number of firms experience challenges, including rising inflation (64 percent), high taxes (54 percent), and currency depreciation (45 percent).
- **Access to finance.** More than four out of five firms (84 percent) encountered difficulty accessing finance, primarily attributed to high interest rates and repayment risks.

The aftermath of the pandemic and new shocks

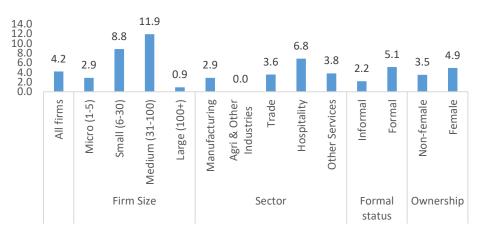
The Business Tracker Survey, Wave 4, was conducted in the second half of 2023. The previous waves mostly focused on the longer-term impact of COVID. They showed that firms had begun to recover from the pandemic, but with significant variation between firms and sectors. The data also indicated that although firms had experienced improvements in their cashflow situation and outlook, uncertainty persisted. The previous waves further revealed an increase in the use of digital technologies, including mobile money.

SALES



**Nominal sales improved for the median firm.** The median firm saw an improvement in nominal sales of 4.2 percent between 2021 and 2022. Given the inflation rate of 31.5 percent, this corresponded to a real decline of 20.8 percent. Among firms, the change in sales was higher for small- (8.8 percent) and medium-size firms (11.9 percent) as well as for firms in the hospitality sector (6.8 percent), which includes accommodation and food. During the pandemic, this was the sector that was among the most hard-hit, with almost half (44.5 percent) of the firms closing their operations during the initial months of the pandemic. Formal firms (5.1 percent) also report higher median sales than informal firms (2.2 percent). Female majority-owned firms reported higher median sales increases compared to businesses without female majority ownership.

Figure 1. Percentage change in sales of the median firm, 2022 compared with 2021



*Note:* Sales data compare monthly sales for six months in each year (January–March and November–December).

**Recovery has nevertheless been uneven for firms—with many differences between firms.** Among all firms, a firm in the bottom 10th percentile of the distribution faced a 44 percent decline in sales, while a firm in the 90th percentile saw a 60 percent increase in sales. Sectoral breakdowns show a similar variance to the change in sales. The variance is the highest in the hospitality industry, where a firm in the bottom 10th percentile saw a 62 percent decrease in sales, while a firm in the 90th percentile saw a 93 percent increase. This indicates that even firms in the same industry saw very different outcomes in terms of their changes in sales.

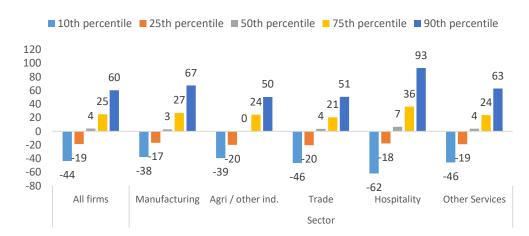


Figure 2. Distribution of the change in sales between 2022 and 2021, by percentile

*Note*: Sales data compares monthly sales for six months in each year (January–March and November–December).

EMPLOYMENT

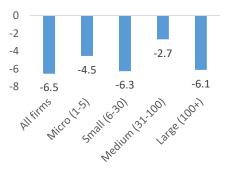


**Both hiring and worker layoffs increased.** Five percent of the firms reported hiring new workers, whereas eight percent reported laying off workers (see Figure 3). A relatively higher proportion of medium firms hired new workers (11 percent), with the least occurring in the micro firms (4 percent). On the other hand, layoffs are relatively higher among small firms (11 percent) compared to medium (8 percent), micro (7 percent), and large firms (7 percent). Figure 4 depicts the percentage changes in employment across firm sizes between January 2023 and January 2022. The average employment in firms decreased by about seven percent.<sup>1</sup>

Figure 3. Share of firms hiring and Fi laying off, between January 2022 and en January 2023 and American American American



Figure 4. Percentage change in employment, between January 2022 and January 2023



A more in-depth analysis of business performance, including statistical comparisons, is included in Annex 1.

**Box 1. Pandemic impacts on firms - results from four waves of Business Tracker Surveys** The earlier waves of the Ghana Business Tracker Survey focused on the impact of the pandemic on businesses in Ghana. The results showed that the private sector was hit heavily, with many firms

<sup>&</sup>lt;sup>1</sup> The survey re-interviewed firms from earlier waves and did not include newly established firms, which are typically important job creators.

closing down temporarily and those who remained open, had decreases in sales. At the time of the first survey, significant restrictions were in place, which forced roughly a quarter of businesses (26.5 percent in Wave 1, May–June 2020) to close down (fully or partially). Particularly, firms in the hospitality and other services industry were affected (respectively 44.5 and 49.6 percent in Wave 1). Of the firms that remained open, significant impacts on sales were seen as well (Figure 5). The third wave (in September 2021) highlighted that most of the firms were recovering, with most firms reopening and sales slowly improving.



The earlier results of the Business Tracker also highlighted that firms have been adapting during the pandemic, most notably with increasing the adoption of digital technologies (for example, mobile money) and selling online to customers. The results from the latest wave highlight that many of these changes have lasted.

### Measures of firm adjustment and capabilities: digital, green, and managerial practices

A notable result from earlier Business Tracker Surveys was that more firms have been adopting digital technologies in response to the pandemic. The next section analyzes how firms have been coping with the aftermath of the pandemic as well as with new challenges, including those around energy efficiency and measures of firm capabilities.

### DIGITAL



**Firms are investing in digital technologies, with more firms adopting technologies.** A notable 12 percent of firms are strategically embracing digital technologies as a means to counteract the impact of the ongoing economic crisis, a trend evident in Figure 7. Medium (34 percent) and large (40 percent) firms appear to be at the forefront of this technological investment (Figure 7). The distinction between formal and informal firms is discernible, with formal firms displaying a higher commitment to digital technology adoption, accounting for 15 percent of their investments compared to 9 percent in informal firms (Figure 7).

During the pandemic, the share of firms using mobile money and selling online increased. At the beginning of the pandemic, only 36 percent of firms used mobile money and 8 percent sold online. In September 2021, this share had increased to 13 percent. Between 2021 and 2023, the shares of firms using mobile money and selling online remained nearly unchanged. The latest wave highlights that 68 percent of firms use mobile money and 12 percent of firms sell online in 2023.

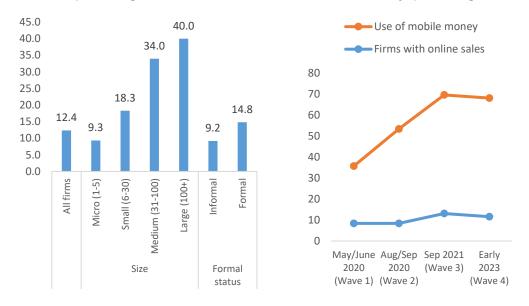


Fig 7. Share of firms investing in digital Fig 8. Firms with only sales and use solutions, percentage

of mobile money, percentage

Micro and small firms are lagging in the adoption of technologies. Significant gaps between firms of different sizes are present, both in the use of online sales and in the adoption of mobile money. Medium and large firms are four times more likely to sell online than micro firms. Larger firms are also more likely to use mobile money (Figure 9).

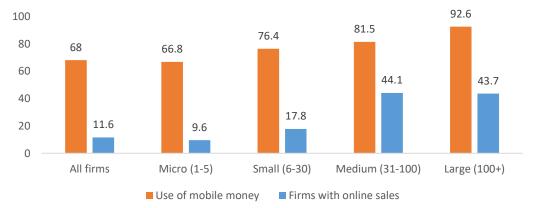
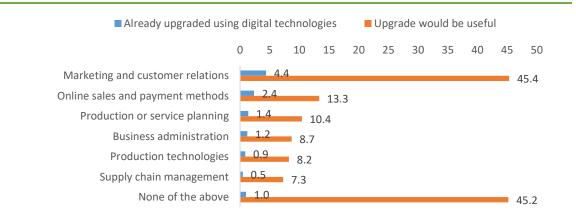


Figure 9. Share of firms with online sales and using mobile money

Digital technologies are used for a wide range of business functions. Firms were asked which business functions have been upgraded using digital technologies and also which business functions could benefit. The business area with the largest use of digital technologies is marketing and customer relations, where 4.4 percent of firms report an upgrade, followed by online sales and payment methods and production or service planning (Figure 10). These business functions are also seen as the functions where upgrades would be the most desirable, with 45.4 percent of firms reporting that the marketing and customer relations business function could benefit from digitalization. Nevertheless, 45.2 percent of firms indicate that none of the business functions mentioned could benefit from upgrading using digital technologies.

### Figure 10: Business functions upgraded using digital technologies, percentage



#### GREEN



**The adoption of energy-efficient measures is low.** Except for energy-efficient lighting (21 percent), few firms report that they have adopted measures to reduce energy. One in ten firms report that they are using energy-efficient manufacturing equipment (Figure 11). More than two-thirds of micro, small, and medium firms report not having a target for energy consumption. Among large firms, 60 percent do not have a target (Figure 12).

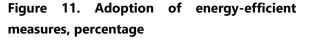
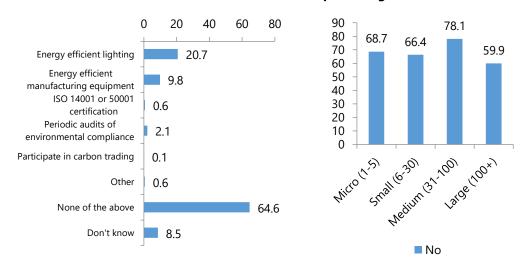
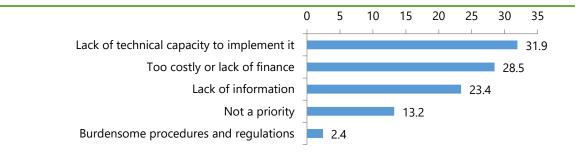


Figure 12. Firms without a target for energy consumption, percentage



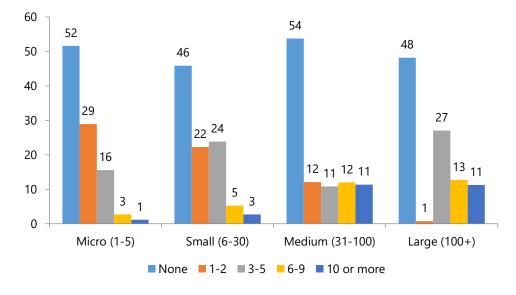
Lack of technical capacity, information, and finance are the most common obstacles to adopting energy-efficient practices. Firms that did not adopt energyefficient practices were asked for their most significant obstacle. About one-third (32 percent) indicate that a lack of capacity to implement is the main reason for not adopting (Figure 13). Lack of finance is given as a reason by 28 percent of firms and a lack of information by 23 percent of firms.

Figure 13: Main obstacles for not adopting energy-efficient practices, percentage



FIRM CAPABILITY **The adoption of structured managerial practices remains low.** Firm capability, including the use of 'structured' managerial practices, is an important driver of firm performance and productivity. Structured managerial practices include whether firms set targets, measure performance against these targets, the use of incentives, and other monitoring. The Business Tracker Survey included questions on the use of key performance indicators (KPIs) by firms. Nearly half of firms report that they do not monitor any KPI. This holds for all firms irrespective of size. Among firms that use KPIs, larger firms tend to observe a greater number of KPIs than micro firms, where many firms (29 percent) have only one or two KPIs (Figure 14).





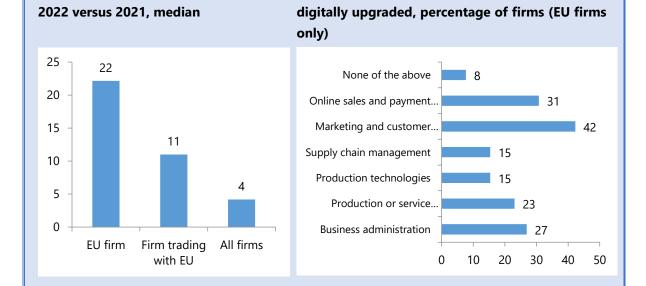
### Box 2: Impacts on firms with links to the European Union

The fourth wave of the Business Tracker Survey was conducted in partnership with the EU. Through this partnership, the sample was expanded to include multinational firms with EU ownership as well as firms with trading relationships with EU firms, and specific analyses were conducted on these firms. The EU is an important trading partner for Ghana and many EU firms have a presence in Ghana. The Business Tracker Survey highlights that firms with EU links have been more resilient, as indicated by their performance. The median EU affiliate firm saw a sales increase of 22 percent, against 4 percent of all firms in the sample (Figure 15). Also, firms that were trading with the EU saw higher sales increases (11 percent) than the sample of all firms. Employment changes were also less negative

for EU firms than for the sample of all firms (minus 3 percent for EU firms and minus 1 percent for firms trading with the EU against minus 7 percent for all firms).

In addition, EU affiliate firms in Ghana tend to be forerunners in the adoption of digital technologies. Roughly one-third (35 percent) of EU firms have invested in digital technologies and 69 percent of EU firms sell online. About 92 percent of EU firms have at least one of their business functions digitally upgraded with marketing and customer relations being the highest beneficiary (42 percent) (Figure 16). Firms trading with the EU are also more likely to invest in digital technologies, with 41 percent doing so and 63 percent of firms trading with the EU having online sales. These results highlight the role that multinational firms-including those from the EU-play in adopting digital technologies.

Figure 16: Business functions that have been



Also, in the adoption of green practices, EU affiliate firms and those linked with the EU are more likely to adopt energy-saving practices. More than two-thirds of EU affiliate firms (69 percent) have set energy targets, which is higher than for the overall sample of firms. Of firms trading with the EU, 43 percent have set energy targets. In terms of energy-saving practices, EU affiliates and firms trading with the EU are more likely to use energy-efficient lighting, energy-efficient manufacturing equipment, and perform periodic audits.

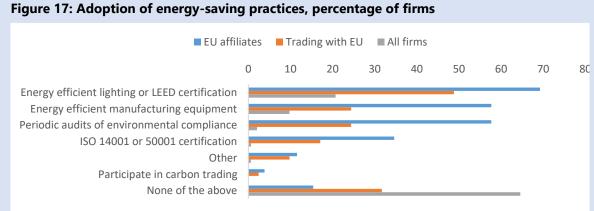


Figure 15: Percentage change in sales,

### **Outlook and challenges**

### OUTLOOK

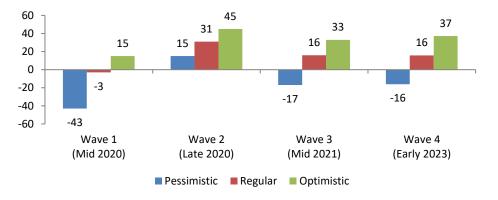
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The survey asked firms for their expectations of what they considered most likely, and what a more pessimistic and optimistic scenario could look like. The results show a high degree of uncertainty in the expectations of firms. Uncertainty is an important additional channel affecting firms during the pandemic and as the economy reopens, this could result in a lower desire for risk and investments.

The overall projections of firms on future sales are positive. In the scenario that firms perceive as the most likely (the 'regular' scenario in Figure 18), firms expect, on average, an increase in sales of 16.0 percent over the next six months. This is the same as the third wave, but lower than the second wave (31 percent) and higher than the first wave (-3 percent).

In the most pessimistic scenario, firms anticipated a decline in demand of 16.0 percent in Wave 4, compared to the negative sales outlook in Wave 3 (-17 percent), and Wave 1 (-43 percent). The optimistic scenario continues to show positive sales increases (37 percent). However, the wide range between the optimistic scenario (on average a 37.0 percent increase) and the pessimistic scenario (on average a 16.0 percent decline), indicates that firms still anticipate potential volatility in sales over the next six months.

Figure 18: Outlook of sales in six months from survey period (expected change in sales in the next six months, across three scenarios)

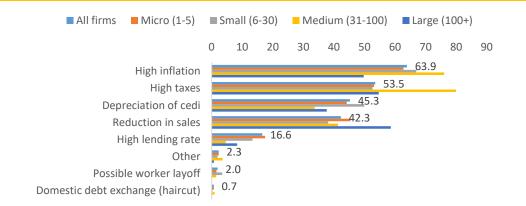


CHALLENGES



**Firms anticipate future challenges within the economy.** The top three challenges firms expect to face include the general rise in prices (inflation, 64 percent of firms); high taxes (54 percent); and currency depreciation (45 percent). In addition, dwindling demand and high borrowing costs were also a concern. For large firms, the reduction in sales was the major concern, while for medium firms, high taxes and high inflation were the major concerns (Figure 19).

### Figure 19 Main challenges in the next 30 days

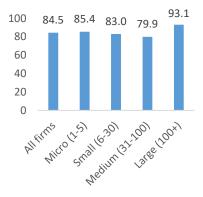


### FINANCE

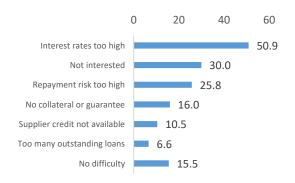


Access to finance remains an important constraint. Firms continue to experience difficulties in accessing finance post the COVID-19 pandemic. More than four out of five firms (85 percent) reported difficulty accessing finance (Figure 20), across all size categories. Figure 21 depicts the various types of constraints firms registered in accessing financing. The dominant constraints reported were interest rates being too high (51 percent), followed by unwillingness by financial institutions to offer financial support (30 percent), high repayment risk (26 percent), and lack of collateral (16 percent).

# Figure 20: Firms reporting difficulties in accessing finance, share of firms



# Figure 21: Main difficulties in accessing finance, percentage of firms



### Box 3: Methodology of the Business Tracker

The results presented in this note are from the Business Tracker Survey, conducted by the Ghana Statistical Service, with support from the EU, World Bank, and UNDP. The Business Tracker Survey is part of the global Business Pulse Survey (BPS) initiative of the World Bank, surveying the state of the private sector in more than 50 countries. Initial BPSs had focused on the impact of COVID-19, while more recent surveys look at the impacts of other internal and external shocks as well as how firms cope with new challenges, including climate change.

For the Ghana survey, 3,157 firms were interviewed in the fourth round of the survey. Earlier waves interviewed 4,311 firms (Wave 1), 3,658 firms (Wave 2), and 4,858 firms (Wave 3). The first survey

(Wave 1) was conducted in May–June 2020, with sales figures referring to March–April 2020. Wave 2 was conducted in August–September 2020, with sales figures referring to May–June 2020. Wave 3 was conducted in September 2021, with sales figures referring to January–March 2021. Wave 4 was conducted in April–July 2023, with sales figures referring to January–March 2022 and October–December 2022.

The primary sources for the sample are the Integrated Business Establishment Survey (IBES) conducted in 2013 and the Ghana Living Standards Survey Round 7 (GLSS7) conducted in 2017. To cover firms founded after 2013, an additional group of young micro, small, and medium establishments (MSMEs) were sampled from the client lists of the National Board for Small Scale Industries (NBSSI, which is now the Ghana Enterprises Agency, GEA). Firms were stratified by firm size, sector, and region to ensure representativeness in these categories. The survey includes both formal (registered) and informal (unregistered) firms. In partnership with the EU, additional affiliate firms from the EU were added to the sample as well as a focus was given to firms that trade with the EU. Overall, 60 firms in the sample have links with the EU, either through ownership (26 firms) or trade (34 firms, excluding EU-owned firms), covering all sectors in the economy.

The Business Tracker Survey was conducted in partnership with the EU (which provided funding for the fourth wave of the survey), World Bank (providing technical assistance and funding), and UNDP (which provided funding for earlier waves and the preparation of reports).

### Annex 1: Further analysis of business performance

This section focuses on evaluating the performance of businesses in Ghana in response to disruptions in the global value chain during distinct global economic crises, namely, the COVID-19 pandemic and the Russia-Ukraine war. The analysis entails a comparative assessment of variations in business operations across the years directly influenced by these crises: specifically, the year 2020, which corresponds to the onset of the COVID-19 pandemic, the year 2022, which aligns with the period of the Russia-Ukraine war, and the intervening year of 2021.

Our approach involves an examination of the correlation between various firm factors, including changes in employment, shifts in sales, utilization of digital solutions, trading status, the gender of managerial personnel, and the age of managers. Through this inquiry, we aim to uncover insights into the dynamic relationship between these factors and business performance during these critical years.

To assess the significance of these relationships, we employed the chi-squared test, along with associated p-values. The null hypothesis for each chi-squared test posits that there is no significant association between each of the factor variables and business operation status. The rejection of the null hypothesis, indicated by a p-value less than or equal to 0.05, suggests evidence of a significant association between the variables. Our findings are presented in Tables 1, 2, and 3, each delineating the correlations between factor variables and firms' performance across a pair of three years: 2020 and 2021, and 2021 and 2022.

### Business performance between 2020 and 2022

Change in employment, change in sales, and use of digital solutions are associated with changes in business operation status, while trading status of business, gender of manager, and age of manager do not appear to have a substantial impact on business performance between 2020 and 2022 (see Table 1).

Specifically, businesses reporting positive changes in employment generally witnessed improvements in their operations compared to those with negative employment changes. This trend is mirrored in the relationship between business operations and sales. Furthermore, businesses embracing digital solutions in their operations predominantly experienced enhanced operational performance compared to those who did not.

| mproved | the same                                                          | Worsened                                                                                                 | Total                                                                                                                                              | Chi (p-value)                                                                                                                                                                    |
|---------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (%)     | (%)                                                               | (%)                                                                                                      | (%)                                                                                                                                                |                                                                                                                                                                                  |
|         |                                                                   |                                                                                                          |                                                                                                                                                    |                                                                                                                                                                                  |
| 21.86   | 23.17                                                             | 54.97                                                                                                    | 100.00                                                                                                                                             | 40.54 (0.00)                                                                                                                                                                     |
| 22.19   | 26.64                                                             | 51.16                                                                                                    | 100.00                                                                                                                                             |                                                                                                                                                                                  |
| 40.09   | 19.34                                                             | 40.57                                                                                                    | 100.00                                                                                                                                             |                                                                                                                                                                                  |
|         |                                                                   |                                                                                                          |                                                                                                                                                    |                                                                                                                                                                                  |
| 13.04   | 23.91                                                             | 63.04                                                                                                    | 100.00                                                                                                                                             | 183.77 (0.00)                                                                                                                                                                    |
| 7.94    | 34.92                                                             | 57.14                                                                                                    | 100.00                                                                                                                                             |                                                                                                                                                                                  |
| 31.73   | 25.50                                                             | 42.76                                                                                                    | 100.00                                                                                                                                             |                                                                                                                                                                                  |
|         |                                                                   |                                                                                                          |                                                                                                                                                    |                                                                                                                                                                                  |
| 22.18   | 25.82                                                             | 52.00                                                                                                    | 100.00                                                                                                                                             | 6.82 (0.03)                                                                                                                                                                      |
| 26.94   | 22.81                                                             | 50.25                                                                                                    | 100.00                                                                                                                                             |                                                                                                                                                                                  |
|         | (%)<br>21.86<br>22.19<br>40.09<br>13.04<br>7.94<br>31.73<br>22.18 | (%) (%)   21.86 23.17   22.19 26.64   40.09 19.34   13.04 23.91   7.94 34.92   31.73 25.50   22.18 25.82 | (%) (%)   21.86 23.17 54.97   22.19 26.64 51.16   40.09 19.34 40.57   13.04 23.91 63.04   7.94 34.92 57.14   31.73 25.50 42.76   22.18 25.82 52.00 | (%) (%) (%) (%)   21.86 23.17 54.97 100.00   22.19 26.64 51.16 100.00   40.09 19.34 40.57 100.00   13.04 23.91 63.04 100.00   7.94 34.92 57.14 100.00   31.73 25.50 42.76 100.00 |

### Table 1: Correlates of business operations between 2020 and 2022

|                            |                 | Remained        |                 |              |               |
|----------------------------|-----------------|-----------------|-----------------|--------------|---------------|
|                            | Improved<br>(%) | the same<br>(%) | Worsened<br>(%) | Total<br>(%) | Chi (p-value) |
| Trading status             |                 |                 |                 |              |               |
| Not importing or exporting | 22.86           | 51.76           | 25.38           | 100.00       | 3.98 (0.14)   |
| Importing or exporting     | 31.76           | 48.24           | 20.00           | 100.00       |               |
| Gender of Manager          |                 |                 |                 |              |               |
| Male managed               | 23.10           | 25.17           | 51.73           | 100.00       | 0.03 (0.99)   |
| Female managed             | 23.12           | 25.44           | 51.44           | 100.00       |               |
| Age of Manager             |                 |                 |                 |              |               |
| Manager under 40           | 23.23           | 26.77           | 50.00           | 100.00       | 1.88 (0.39)   |
| Manager above 40           | 23.06           | 24.60           | 52.34           | 100.00       |               |

### Business performance between 2020 and 2021

The findings reveal a parallel pattern to earlier results, demonstrating that employment, sales, and the integration of digital solutions remain linked to shifts in business operational status (that is, sales). Meanwhile, the trading status of the business, the gender of the manager, and the manager's age show limited impact on business performance during 2020–2021, consistent with previous findings. Contrary to earlier results, however, firms that are into trade (that is, importing or exporting) had improvement in sales compared to their counterparts who are not into trading.

|                            | Remained |                 |                 |              |               |
|----------------------------|----------|-----------------|-----------------|--------------|---------------|
|                            | Improved | the same<br>(%) | Worsened<br>(%) | Total<br>(%) | Chi (p-value) |
|                            | (%)      |                 |                 |              |               |
| Employment                 |          |                 |                 |              |               |
| Decrease                   | 35.85    | 43.50           | 20.66           | 100.00       | 39.96 (0.00)  |
| No change                  | 37.92    | 43.30           | 18.78           | 100.00       |               |
| Increase                   | 31.60    | 51.89           | 16.51           | 100.00       |               |
| Internet/Online            |          |                 |                 |              |               |
| Does not use online        | 36.87    | 42.67           | 20.46           | 100.00       | 6.54 (0.04)   |
| Uses online                | 36.86    | 46.94           | 16.20           | 100.00       |               |
| Trading status             |          |                 |                 |              |               |
| Not importing or exporting | 37.31    | 19.85           | 42.84           | 100.00       | 19.73 (0.00)  |
| Importing or exporting     | 21.18    | 11.76           | 67.06           | 100.00       |               |
| Gender of Manager          |          |                 |                 |              |               |
| Male managed               | 36.68    | 43.42           | 19.90           | 100.00       | 0.50 (0.78)   |
| Female managed             | 37.48    | 43.78           | 18.74           | 100.00       |               |
| Age of Manager             |          |                 |                 |              |               |
| Manager under 40           | 37.39    | 44.91           | 17.70           | 100.00       | 3.09 (0.21)   |
| Manager above 40           | 36.65    | 42.93           | 20.42           | 100.00       |               |

### Table 2: Correlates of changes in sales between 2020 and 2021

### **Business performance between 2021 and 2022**

Changes in employment, shifts in sales, and the integration of digital solutions continue to exhibit associations with business operation status (that is, sales). However, as previously observed, the trading

status of the business, the manager's gender, and the manager's age still do not seem to significantly influence business performance during the period spanning 2021 to 2022 (refer to Table 3).

|                            | Remained |          |          |        |               |
|----------------------------|----------|----------|----------|--------|---------------|
|                            | Improved | the same | Worsened | Total  | Chi (p-value) |
|                            | (%)      | (%)      | (%)      | (%)    |               |
| Employment                 |          |          |          |        |               |
| Decrease                   | 43.83    | 34.86    | 21.31    | 100.00 | 111.66 (0.00) |
| No change                  | 32.38    | 44.65    | 22.97    | 100.00 |               |
| Increase                   | 19.34    | 58.02    | 22.64    | 100.00 |               |
| Internet/Online            |          |          |          |        |               |
| Does not use online        | 36.07    | 40.07    | 23.86    | 100.00 | 24.18 (0.04)  |
| Uses online                | 29.26    | 51.07    | 19.67    | 100.00 |               |
| Trading status             |          |          |          |        |               |
| Not importing or exporting | 37.31    | 19.85    | 42.84    | 100.00 | 5.76 (0.06)   |
| Importing or exporting     | 21.18    | 11.76    | 67.06    | 100.00 |               |
| Gender of Manager          |          |          |          |        |               |
| Male managed               | 35.16    | 41.95    | 22.89    | 100.00 | 0.78 (0.68)   |
| Female managed             | 33.38    | 43.09    | 23.53    | 100.00 |               |
| Age of Manager             |          |          |          |        |               |
| Manager under 40           | 34.40    | 44.47    | 21.13    | 100.00 | 3.60 (0.17)   |
| Manager above 40           | 34.88    | 41.29    | 23.83    | 100.00 |               |

### Table 3: Correlates of changes in sales between 2021 and 2022



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