The Impact of COVID-19 on the Small Businesses Economic Performance: Evidence from Italy

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Abstract: The purpose of this paper is to identify the effects caused by COVID-19 on the economic performance of Italian small businesses in the year 2020, with particular regard to the relationships between the determining variables of the operational management profitability. This survey can be useful in guiding the management of the firm, since it allows to intercept the management areas characterized by greater fragility which, as such, must be subjected to closer monitoring. The research considered a sample of 322 small Italian companies. To identify the impact caused by the pandemic on the performance of the selected sample, the research used a Pearson correlation analysis applied to the main variables of the operating area and observed the five years 2016-2020 in order to understand the main variations that occurred in 2020 compared to previous years. The research showed that in 2020 the core business suffered a general loss of elasticity demonstrated by the presence of a significant reduction in the correlation between revenues and production costs (raw materials, services, employees and depreciation). The lower reactivity of costs to changes in revenues contributed to the sharp erosion of the net income of the companies in the sample.

1. INTRODUCTION

The international crisis caused by the COVID-19 pandemic has had serious consequences on the performance of companies, causing a general worsening of their economic results. In conditions of extraordinary criticality such as those occurring in 2020 – the year the pandemic spread – the maintenance of adequate levels of profitability and efficiency was hindered by a general decline in demand and a reduction in turnover levels (Kalogiannidis, 2020).

In the Italian context, the entrepreneurial fabric is characterized above all by the presence of small and medium-sized enterprises (Goodman, et al., 2016) which, while on the one hand can benefit from greater management flexibility (Bamford, 2020), on the other, generally do not possess high levels of financial strength.

In particular, the greater managerial flexibility of small businesses derives mainly from their low level of bureaucracy (Alves et al., 2020). However, at the same time, the financial weakness of small firms, and especially undercapitalized ones, increases the likelihood that they will suffer a greater loss of profitability, as well as lead to longer recovery times and less resilience (Katare et al., 2021).

In addition, small Italian companies had to face the emergency in an economic context characterized, for over 10 years, by slow and not yet complete growth, due to the consequences of the 2008 financial crisis (D’Amato, 2020). Although the recovery had begun weakly, profitability levels prior to the 2008 crisis had not yet been recovered, placing small businesses in a situation of substantial weakness that made them not sufficiently ready to deal with the shock caused by the pandemic.

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COVID-19 has caused a collapse in demand and business activity, both in manufacturing and in services, and overcoming the crisis now requires resilience, agility and flexibility (Rapaccini et al., 2020).

As revealed by recent research conducted on over 5,800 small businesses, COVID-19 has not only caused a global health crisis but has also had a devastating effect on the economy, causing the closure of many economic activities and drastic staff reductions, which they have added to the well-known financial fragility that typically characterizes small businesses (Bartik et al., 2020).

Another recent research conducted on the active small businesses in the United States found that the decline in the number of entrepreneurs was the largest ever and the losses were felt in almost all economic sectors (Fairlie, 2020).

Based on these premises, the present research aims to analyze the effects that the COVID-19 shock has produced on the relationships between the determining variables of the profitability of companies.

The identification of these relationships is an essential element for improving economic performance as it allows management to be directed towards useful actions to restore the equilibrium conditions that the crisis has altered.

2. METHODOLOGY

a) Sample selection

The survey was carried out by selecting a sample of small businesses, built on the basis of quantitative parameters which, according to the Italian Civil Code, allow for the preparation of the financial statements in an abbreviated form. In particular, the Italian Civil Code provides for 3 categories of companies, as illustrated in Table 1.

<table>
<thead>
<tr>
<th>Type of firm</th>
<th>No. of employees</th>
<th>Total revenues</th>
<th>Total assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro-enterprises</td>
<td>Not exceeding 5</td>
<td>Not exceeding € 350,000</td>
<td>Not exceeding € 175,000</td>
</tr>
<tr>
<td>Small businesses</td>
<td>Not exceeding 50</td>
<td>Not exceeding € 8,800,000</td>
<td>Not exceeding € 4,400,000</td>
</tr>
<tr>
<td>Medium and large companies</td>
<td>Higher than 50</td>
<td>Higher than € 8,800,000</td>
<td>Higher than € 4,400,000</td>
</tr>
</tbody>
</table>

Source: Own elaboration

The sample analyzed was selected by considering among all small Italian companies, only unlisted and active joint-stock companies, established no more than twenty years ago. The period of twenty years represents an acceptable time interval to observe the economic results of the sample, placing itself in an intermediate position between the date of the constitution that dates back over time and an excessively recent date of the constitution.

The number of companies included in the sample selected as above is equal to 322.

Table 2 shows the economic trends of the sample during the 2016-2020 period.
Table 2. Economic trend 2016-2020 (Thousands of Euros)

<table>
<thead>
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<tbody>
<tr>
<td>Revenues</td>
<td>793,889</td>
<td>807,479</td>
<td>678,767</td>
<td>583,707</td>
<td>480,979</td>
</tr>
<tr>
<td>Costs for raw materials</td>
<td>199,878</td>
<td>207,957</td>
<td>184,982</td>
<td>170,951</td>
<td>154,110</td>
</tr>
<tr>
<td>Costs for services</td>
<td>300,156</td>
<td>308,649</td>
<td>256,319</td>
<td>215,263</td>
<td>170,160</td>
</tr>
<tr>
<td>Cost of employees</td>
<td>188,240</td>
<td>182,745</td>
<td>144,862</td>
<td>119,853</td>
<td>103,424</td>
</tr>
<tr>
<td>Depreciations</td>
<td>26,286</td>
<td>25,175</td>
<td>20,885</td>
<td>17,689</td>
<td>10,424</td>
</tr>
<tr>
<td>Provisions</td>
<td>705</td>
<td>823</td>
<td>403</td>
<td>429</td>
<td>167</td>
</tr>
<tr>
<td>Profit (loss)</td>
<td>-4,549</td>
<td>2,420</td>
<td>7,263</td>
<td>7,314</td>
<td>6,242</td>
</tr>
</tbody>
</table>

Source: AIDA Bureau van Dijk

b) Empirical analysis

The empirical survey was conducted by analyzing the economic trends of the sample in the 2016-2020 period.

In particular, the study has taken the profitability of operations as an indicator of economic performance, since it is precisely the core business that has been deeply affected by the serious crisis triggered by the pandemic.

On the one hand, the demand reduction has caused a fall in revenues; on the other, operating costs have remained unchanged or, in some cases, have even increased, with serious damage to profit margins.

In this regard, it is important to emphasize that, for efficient management, in the face of a reduction in revenues, maintaining the economic balance would require a corresponding decrease in costs.

However, this objective is not always achievable and becomes even more difficult to achieve in the presence of extraordinary events, unknown to firms.

In particular, there are at least three fundamental factors that can hinder the reduction of costs in the face of the decline in revenues:
  a) the presence of fixed costs which, in any circumstance, ordinary or extraordinary, make immediate management adjustments almost impossible;
  b) the institutional constraints on the reduction of variable costs;
  c) external factors, among which the conditions of the economic environment in which the firm operates are of essential importance.

As regards the factor sub a), the literature has underlined how the presence of high fixed costs constitutes one of the possible causes of failure of small businesses; therefore, before starting the business, the entrepreneur should first obtain an amount of capital appropriate to the size of the firm and keep fixed costs at a low level (Lussier, 1996).

Concerning factor sub b), it is important to note that the decrease in variable costs with decreasing volumes of activity is not always automatic, especially in contexts in which firms encounter institutional constraints to reduce the cost of some production factors. In this regard, Italy constitutes an example of significant rigidity in the job market and labor costs (Biasi, 2013).
With regard to factor sub c), it is necessary to consider that the pandemic represented not only a devastating but also a completely unexpected event for firms, and, as such, it did not allow for the redefinition of business structures to be planned in advance.

With reference for example to the costs of materials, the literature has shown that the hypothesis that they did not vary much even in the sectors affected by the lockdown is reasonable, given the unforeseen and sudden nature of the COVID-19 shock (Carletti et al., 2020).

Added to this is the delay with which firms recognized the serious consequences of the pandemic, perceiving the economic crisis only after share prices had started to fall (Buchheim et al., 2021).

Given the centrality of operational management, the study focused on the analysis that the reactivity of costs to changes in revenues has shown in the extraordinary and exceptional economic conditions caused by the pandemic shock.

In order to identify the alterations of the economic relationships that have occurred in the context of the operational management (Panno, 2019), the revenues were assumed as independent variable, while the following variables were considered dependent:

- costs for raw materials;
- costs for services;
- costs of employees;
- depreciations.

The research is based, in fact, on the assumption that, especially for small businesses, the reduction of operational management costs (Pencarelli et al., 2020) represents an essential element for survival in a highly disturbed economic environment such as the one in which the world economy stands today.

In particular, the study of the relationships between revenues and costs of operational management was carried out by applying the Pearson correlation analysis which allows identifying the strength and direction of the correlation existing between the variables examined.

In this sense, the research used the Pearson correlation coefficient as an indicator of the elasticity of costs compared to revenues.

The elasticity of costs represents a particularly significant management factor both because it provides a concise and effective measure of the company’s ability to react to events capable of changing the volume of revenues, and because it has a high forecast utility.

In fact, literature has often used elasticity to estimate the variation in operating costs in the context of various surveys aimed at making predictions on the consequences of the Coronavirus. In particular, these studies were conducted to forecast the impact of the crisis in terms of losses, equity depletion and corporate defaults (Buchetti et al., 2021), or to estimate the COVID-19 cash crunch (De Vito, Gómez, 2021).

The greater the elasticity of costs, the more likely it is that the reduction in revenues will not affect the profitability of operations, given that profit margins tend to remain stable.
On the contrary, the greater the rigidity of the costs, the less is the possibility that the profit margins will remain unchanged as revenues decrease.

Especially in conditions of economic crisis, such as those caused by the pandemic, the company’s ability to quickly adapt management to changing environmental conditions is a strategic factor of absolute importance. In this sense, the achievement of a high level of cost elasticity can be a useful tool to preserve the profitability of management, since it allows to better contain the serious consequences that the reduction in revenues causes on the economic performance of the firm.

3. EMPIRICAL FINDINGS

Table 3 presents the Pearson correlation coefficients for each dependent variable during the period 2016-2020.

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<tbody>
<tr>
<td>Costs for raw materials</td>
<td>0.553</td>
<td>0.643</td>
<td>0.692</td>
<td>0.663</td>
<td>0.748</td>
</tr>
<tr>
<td>Costs for services</td>
<td>0.619</td>
<td>0.648</td>
<td>0.665</td>
<td>0.675</td>
<td>0.624</td>
</tr>
<tr>
<td>Costs of employees</td>
<td>0.294</td>
<td>0.424</td>
<td>0.525</td>
<td>0.561</td>
<td>0.628</td>
</tr>
<tr>
<td>Depreciations</td>
<td>0.0737</td>
<td>0.219</td>
<td>0.217</td>
<td>0.215</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: Own elaboration

As Table 3 shows, in the year 2020, all correlations underwent a greater weakening than that which occurred in the previous four years.

In particular, the weakening is lower in relation to costs for raw materials and services, while it is much more marked for employees’ costs and depreciations.

As regards the correlation between revenues and costs for raw materials, as well as between revenues and costs for services, the data can be considered representative of the company’s ability to adjust its operating costs to changes in turnover. The correlation, although it had decreased compared to the previous four-year period, was nonetheless not negligible.

On the contrary, the cost of employees has shown a more decisive reduction in elasticity compared to previous years and its correlation with revenues has become rather weak.

Finally, the correlation between revenues and depreciation was practically nil in 2020.

4. CONCLUSION

The observations carried out allow us to affirm that in the year 2020, in which the economic shock caused by the pandemic took place, the characteristic management of small Italian businesses suffered a remarkable decline in its elasticity (Schivardi, Guido, 2020), analyzed here through the reconstruction of the reactivity of costs to varying of business volumes.

This implied that faced with the reduction in revenues due to the drop in demand caused by the pandemic, small businesses were not able to proportionally reduce costs and maintain the previously achieved levels of profitability (Bernardi et al., 2021; Orlando, Rodano, 2020).
However, while the reactivity of variable costs for raw materials and services has maintained levels not too far from the previous years, the elasticity of employees costs has significantly reduced, while that of depreciation was almost zero.

In this regard, some specific considerations are appropriate.

First of all, regarding employees’ costs, it is necessary to remember that Italy is characterized, even in ordinary conditions, by a particular rigidity of the labor market. Moreover, with the spread of the pandemic, the Italian government has adopted specific measures aimed at the protection of employment levels through the prohibition on dismissal imposed on firms.

Secondly, concerning depreciation, the presence of a particularly weak correlation with revenues, i.e. 0.0737, can in part be explained by the measures adopted by the Italian government to support the financial statements, including the possibility of not allocating depreciation for the year 2020.

Over the last decade, the global economic context has been particularly unstable. The experience lived by firms around the world, from the financial crisis of 2008 to the pandemic crisis that began in 2020, has now made it clear that flexibility has become an essential strategic factor for long-term survival.

To this end, operational management, in which the main source of the economic performance of firms resides, must be ready to face with maximum speed the changes that now occur more suddenly and unexpectedly than in the past.

From an economic point of view, flexibility must translate into the ability to manage costs adequately and in particular the ability to create a business structure in which operating costs move in harmony with revenues in order to safeguard profit margins in the face of completely unpredictable events.

The readiness for change must become a normal condition, especially for small businesses that often have the modest financial strength and therefore must be ready to continuously support the profitability of operations.

The evidence that emerged from the research may be useful for the concrete orientation of management, since in the face of unpredictable and sudden events, such as the spread of COVID-19, one way to survive consists in the ability of the company to promptly adapt its operational management, especially considering that, in the objective impossibility of achieving adequate levels of revenues, the room for maneuver must be concentrated on costs.

In this sense, improving the elasticity of operational management can represent an essential condition for dealing with unexpected exogenous events with respect to which reaction times must be particularly rapid.
REFERENCES


