

Market Entry and Exit in the manufacturing sector and productivity gain in Jordan

Summary: enhancing firm's productivity in the manufacturing sector is extremely important if these firms wish to access export markets and survive international competition. The question is what determines productivity level and why it varies across sectors. How this is related to firms dynamics of entry and exit and survival? What is the contribution of new entrants and survival to the overall productivity and what government can do to enhance productivity?

This research tries to unpack some of these questions and provide policy recommendations on how to tackle critical issues based on rigorous analysis over the period 1995 to 2005.

Introduction

In 1989 Jordan embarked on an adjustment program to enhance the overall business environment of the country through deregulation and privatization of state-owned enterprises. The intention was to enhance productivity through competition, which could benefit both consumers (with lower prices) and business (with better chances of entering international markets).

Despite these economic reforms, Jordan's economic productivity has changed little over the last twenty years and remains low in comparison to other countries – especially those in the industrialized world.

Particularly during the current financial crisis, enhancing productivity rates is essential to achieving sustainable economic growth in the country. The entry and exit dynamics of firms into the marketplace are key determinants of productivity, and provide important insight into Jordan's stagnant productivity rates over the last decade in most industrial sectors.

Focusing on the manufacturing sector, which has been expanding both in real terms and as a percentage of GDP, this policy brief summarizes the findings of innovative research on firm-level entry and exit dynamics in Jordan and concludes with specific policy recommendations for increasing productivity in the sector.

About the research

The research that informs this policy brief is a statistical analysis that combines two disparate sets of official data collected on the manufacturing sector from 1999 to 2005. The analysis focuses on firms that employ 10 or more employees, a grouping that accounts for more than 80% of the manufacturing sector's contribution to GDP. Those firms were then classified as one of three types: survivors, exitors, and entrants. 'Survivors' are firms that already existed in 1999 and that survived to at least 2005. 'Exitors' are firms that existed in 1999, but that left the market in or before 2005. 'Entrants' are firms that were established between 1999 and 2005.

Findings

The study reveals that the survival rate of firms in the Jordanian manufacturing sector was high among firms that employ 20 employees and estimated at nearly 90 percent. For smaller firms that employ 10 to 20 employees, the survival rate was lower and averaged 82.5 percent.

On the other hand, the entry rate into the market was found to be high, and indeed the highest, for these smaller firms.. This is likely the case because capital requirements and other institutional barriers to market entry are lower for this type of firm. The exit rate was also high in this group and it seems to follow an upward trend averaging 10 percent and reaching as high as 15 percent in 2004. In other words, smaller firms demonstrated more flexibility in entering and exiting the market than larger firms.

For smaller firms, the average number of employees for survivors, exitors and entrants is similar at around 12 employees. This suggests that size, measured by the number of employees, within small firms does not influence a firm's competitiveness or its ability to survive; rather, internal management and the specific sector in which the firm is located appear to have a greater influence on performance. This also indicates that there are other factors such as capital intensity, market access and even access to credit that determine the exit and entry rate within this group. Policies that look to improve productivity may therefore need to focus on these factors.

New entrants to the market tend to increase the number of employees over time, with the average size for firms that entered the market in 1999 expanding from 93 to 131 over five years. For those firms that managed to survive, their growth in employee numbers reflects an increase in market share, greater confidence, and a reduction in the average unit cost of production.

Unsurprisingly, productivity decreased significantly for exiting firms. Between 1999 and 2004, the average productivity of exitors amounted to JD 7,621 (USD 10,670) per employee – much lower than JD 11,290 (USD 15,806) per employee for survivors and JD 8,711 (USD 12,195) per employee for entrants. Interestingly, although the overall trend in productivity was negative for most of the years preceding a firm's exit from the market, there was a marked deterioration in productivity the year prior to exit. This suggests that firms spend some years struggling before they succumb to market pressures, exiting only when they can no longer remain in the market. When they exit, they have, therefore, a positive contribution to average productivity.

Productivity varies widely across sub-sectors, with some achieving strong growth while others suffer from productivity losses.

Sectors such as wearing apparel, non-metallic industry as well as iron and steel scored high levels of productivity growth. Improvements in these sectors can be attributed to favorable economic conditions. For example, the textile industry performance has been boosted by the Qualified Industrial Zones (QIZs) and exports to the US market. In the iron and steel industry, the strong growth can be attributed to the expansion in the construction sector. On the other hand, there are a few sectors that experienced negative productivity growth, namely: the food industry, leather product manufacturing, metallurgy and pottery. These sectors are dominated by the small-and-medium scale industry and lack economies of scale. Operational costs for these industries are not high, however, which has allowed them to survive despite low productivity rates.

The question becomes, then, what factors determine whether a firm decides to enter the market? The findings indicate that the most significant factor that influences the decision to enter any market is profit margin. The more profitable the sector is, the more attractive it is for new entrants. Similarly, the entry rate was found to be positively correlated with the productivity. In other words, more productive sectors tend to attract new entrants due to the link with higher profitability.

The study confirms conventional wisdom regarding market entry: profitability and high productivity as the main drivers of new investment. High productivity implies that the overall business environment is conducive to doing business and also that the available labor force is skillful and adequate.

Policy implications

The evidence from the study suggests that, in the long run, it is better for the overall economy that inefficient firms leave the market. Policies that facilitate this process, like tailored bailout should therefore be considered.

It was found the low productivity of firms is mainly due to poor management or lack of access to credit or larger markets. In order to support these firms, the government should focus on improving the overall business environment and provide assistance along the value chain. This includes securing export markets, better transportation and if needed training on how to qualify their product to more sophisticated markets such as the USA or the EU.

Although new entrants in the market can enhance overall productivity in the long run, the main drivers in productivity came from survivors. The challenge is, therefore, increasing survival rates and enhancing existing firms' productivity.

The study shows that lack of adequate data undermines rigorous analysis. Given the level of unemployment and the difficult time the manufacturing sector is going through, making firm-level data available can help researchers provide informative analysis that can improve the decision-making process based on solid evidence.