THE ROLE OF SMALL AND MEDIUM ENTERPRISES IN SOFIA’s ECONOMY

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The Role of Small and Medium Enterprises in Sofia’s Economy

(2012-2017)
Content

1. Introduction .................................................................................................................. 2

2. Structure of the Companies in Sofia ........................................................................ 2

3. Demography of the Companies in Sofia ................................................................... 6

4. The Role of Small and Medium Businesses in Sofia’s Economy ............................. 7

5. Employment in Small and Medium Enterprises in Sofia .......................................... 10

6. Remuneration in Enterprises in Sofia ......................................................................... 12

7. Labor Productivity ...................................................................................................... 13

8. Conclusions ................................................................................................................. 15
1. Introduction

Small and medium-sized businesses are often referred to as the backbone of the economy. They are a key prerequisite for the existence of market competition and functioning markets, and hence for the overall economic development of a country. It is no coincidence that the EU business support policies focus precisely on providing support for small and medium-sized enterprises (SMEs). SMEs are the segment of the economy with the highest level of entrepreneurial activity, which creates most of the new jobs and which is often a source of successful innovations.

The purpose of this study is to examine the current state and the future trends of the small and medium-sized enterprises in Sofia by providing an analysis of their development over the last decade and in the wider context of the Bulgarian economy as a whole. The study looks at the demography (the active population of SMEs and their survival rate) of the Sofia-based companies, the entrepreneurial activity in the city and the viability and lifespan of the newly-established firms. It will focus on the role SMEs play in Sofia's economic development, and on the employment, wages and productivity in the different types of companies grouped according to their size and industry.

Overall, the results of the study are quite encouraging – as it is in other European economies, SMEs make up the vast majority of the Sofia-based companies and produce the biggest portion of the output. The SME sector is also experiencing the highest levels of entrepreneurial activity. Medium-sized businesses are leading both in terms of labour productivity and levels of remuneration, while small firms continue to lag behind on all of the above indicators.

In recent years, however, micro and small businesses have been showing the fastest growth in a number of indicators – an encouraging trend signifying that their importance for Sofia's economy is likely to increase in the future.

2. Structure of the Companies in Sofia

Non-financial enterprises in Sofia are predominantly micro companies with less than 9 employees. Judging by the data on enterprise demography, most likely the majority of these companies are sole traders.

In 2017, 108,000 out of the 117,000 enterprises registered in Sofia were microenterprises. The number of companies with over 10 employees was much smaller – 7,400 of the companies were small-sized, 1,400 were average-sized and only 290 were big-sized.

The share of the small enterprises was relatively constant along all sectors of economic activity in Sofia: In almost all sectors of the economy micro-enterprises accounted for 85-90% of the enterprises, small enterprises accounted for 5-10%, medium-sized firms for 1-2%, and big ones for less than 1%.

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1 See https://ec.europa.eu/growth/smes_en

2 EUROSTAT's general enterprise statistics/structural business statistics don't separate micro businesses into firms with 0, 1-4, 5-9 employed, thus preventing the differentiation of sole traders.

3 All 2017 data quoted in the study are preliminary. When presenting the results, this study takes into account the final figures for 2016 and their difference from the provisional figures for 2017.

4 The following definitions are used in the report: micro-enterprises – firms with less than 9 employees; small enterprises – firms with 10-49 employees, medium enterprises – with 50-249 employees, large – with over 250 employees. This classification is used by NSI and Eurostat.

There are some specific sectors, like real estate operations, where micro-enterprises constituted 97% of all firms, and manufacturing, where they constituted only 82%. This difference of 15% is determined by the nature of the two sectors; real estate agents often work on their own or in small groups, while industrial manufacturing usually needs a higher level of capital and labour concentration.

The overall size distribution of enterprises is quite similar in Sofia and in Bulgaria. However, there are considerable differences in the size distribution of enterprises depending on the sector of the economy, in which they operate. For example, small companies constitute 20% of the enterprises in the mining industry, 17% in the processing industry and 11% in construction sector. The lack of significant differences in the share of small enterprises between Sofia and the country is not surprising - firms registered in Sofia comprise over 25% of all enterprises in Bulgaria, and have similar economic structure (leaving sectors such as mining, agriculture and energy aside).

In 2017, the companies involved in trade were not as prevalent in Sofia (29%) as they were in the country (34.9%).

On the other hand, the proportion of companies engaged in professional activities is significantly higher in Sofia - 20.5% of all companies in Sofia, compared to 11.2% in the country. (The reason behind this is the concentration of the business processes sector in Sofia.)

The situation is similar in the ICT sector with 7.2% of the enterprises in Sofia vs. 3.4% in the country.

By contrast, agriculture accounts for almost 5% of the enterprises in the country but less than 1% of enterprises in Sofia.

Figure 1 below shows a comparison of the relative share of companies in Sofia and the country by economic activity.
The overall number of companies in both Sofia and the country is growing. This is not surprising, as the period under review (2012 - 2017) is characterized by a robust economic growth. For the period between 2012 and 2017, the total number of companies in Sofia rose by 12.3% against a growth of 8.4% in the country. Traditionally, the number of small businesses had the fastest growth rate – 12.7%, followed by the growth in the number of large companies - 12.1%.

The number of active enterprises did not grow evenly across the different sectors of the economy. For example, the ICT was the fastest growing sector of the economy in terms of number of enterprises – an average of 31% and approaching 32% for companies with up to 9 employees. The growth in the number of medium and large ICT enterprises was far more modest, about 20%.

Despite the overall growth in the number of registered enterprises in Sofia and the country, a few economic sectors experienced a decrease in the number of active enterprises. The decrease was mainly registered among medium and large enterprises and can be explained with the relatively smaller number and the greater structural importance of individual companies in such sectors.

*Figure* 2 presents the overall dynamics of individual enterprise groups over the period in question.

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*Source: NSI * data for 2017 are preliminary*
It is worthwhile to further examine what is the share of Sofia-based companies by economic sector.

Sofia-based enterprises constituted 28.9% or just under 1/3 of all companies registered in the country. This share is rather stable across size groups and economic sectors. It is worth noting however that the share of big firms is slightly higher in Sofia - 38.9% of all big companies are in registered in the city. The share of the Sofia-based large companies is relatively constant across economic sectors. Thus, it is fair to conclude that there is a relative concentration of big companies in Sofia.

For example, the large share (74%) of big trade companies in Bulgaria are in Sofia, mostly due to the fact that the headquarters of large chains for modern trade are located in the city. In contrast, the share of micro-traders in the capital is only 23%.

**ICT companies are also concentrated in Sofia** – 60% of the micro, 71% of the small, 77% of the medium-sized and 93% of the big companies in the sector are based in Sofia.

The distribution in the sector of professional activities is similar. More than 80% of the large and medium-sized companies in this sector are in the capital. This is due to the concentration of outsourcing companies in Sofia, as most outsourcing activities are accounted for as “professional services” by the National Statistical Institute of Bulgaria (NSI). In the other main outsourcing sector – administrative and auxiliary services – Sofia has a share of 70% for large companies, and about 50% for the enterprises of other sizes.

The importance of small and medium-sized businesses for Sofia’s economy is significant. However, looking just at the number of companies can only paint a limited picture. A lot more will be revealed with a review of factors such as output, employment, investments and productivity.
3. Demography of the Companies in Sofia

The methodology used by Eurostat and the NSI in the field of company demography applies terminology, borrowed from population demography. Newly registered companies are considered ‘born’, closed companies are ‘dying’, and those who continue operations ‘survive’.

The data on the ‘birth’, ‘survival’ and ‘death’ of enterprises allows us to track the levels of activity and success of companies operating in different sectors of Sofia’s economy. The latest data on the ‘birth’ of companies are for 2016 and on firm’s ‘death’ – for 2014 because of the great delay in reporting.

In 2016, the last year for which data are available, most companies were created in the micro-enterprise segment – 15 700 of the “born” companies had less than 9 employees. In comparison, there were 207 new small, 19 medium-sized and no large enterprises. This distribution comes as no surprise – most new enterprises start as micro or small businesses, then expand, while new large companies are most often created as a result of foreign investment (a new international company entering the Bulgarian market) – a process that cannot happen with the same intensity as the emergence of micro-companies.

The companies born in Sofia in 2016 were concentrated in several sectors. Trade activities accounted for 4 800 new companies, followed by professional activities with 3 200 new companies. The ICT sector also experienced active entrepreneurial activity, with 1 200 companies ‘born’ in 2016 alone.

The size distribution of the newly “born” companies is consistent among the leading sectors. What stands out, however, is the large share of newly created small businesses in the construction and hotels and restaurants sectors. The number of newly “born” firms in the sectors of construction and hotels is now comparable to the number of newly “born” companies in the sector of trade and retail.

In 2016 there were 16 500 people employed in newly created companies with under 9 employees and 3 400 people working in new small companies. In fact, most of the new jobs in the city of Sofia were created by micro-enterprises.

Most of the new employment was created in the following sectors:

- trade and retail (6 300 new jobs)
- professional activities (2 800 new jobs)
- hospitality and restaurant services (1 800 new jobs).

In most economic sectors, new microenterprises have around one employee; between an average of 0.5 employed in real estate and 1.8 in the hospitality and restaurant industry. For new small businesses, the average number of employees is between 15 and 20 across the different economic sectors. As for the medium businesses, there are data available for only two sectors – trade, where the average number of employees is 127, and ICT, with 92.2 employees.

The rapid creation of new companies alone is not sufficient enough to have a lasting influence on the economy of Sofia. That’s why the role of the businesses “surviving” for more than one year or, in our case, the companies created in 2015 which continued their activity in 2016, is so important.

The overall ‘survival’ rate for the period in review is quite high – for most economic activities, the rate of micro-enterprises that remain active for at least two years is between 80%- 90%, while the ‘survival’ rate of small-

More details at https://ec.europa.eu/eurostat/web/structural-demography
and medium-sized companies in many industries can even reach 100% (however, we must keep in mind that the overall number of micro enterprises is far greater than the number of small and medium ones).

Compared to the base year 2012, the creation of new businesses has intensified considerably in most industries. This is not surprising, having in mind that the period under review was one of consistent economic growth. In 2016, only two sectors, that of healthcare and energy experienced a significant decrease in the number of newly created micro-enterprises. There was a considerable increase in the number of micro-businesses created in the fields of education and administrative and auxiliary activities.

The growth of enterprises in the education sector could be very beneficial for Sofia’s development, given the positioning of the city as a knowledge economy, encompassing the largest share of both the country’s highly educated population and most of the high-tech companies. In terms of administrative and auxiliary activities, the growth is probably driven by service outsourcing activities and Sofia’s attractiveness as an outsourcing destination for such services.

In 2016, 31% of all micro-enterprises, 34% of the small and 46% of the medium-sized firms in the country were created in Sofia.7 However, the shares of new companies in different sectors vary significantly.

For example only 5% of the new agricultural enterprises and 16% of the transport ones were created in Sofia. On the other hand, the city took the lion share of the newly created enterprises in ICT and professional activities - 60% for the micro, 74% for the small and 83% for the medium-sized firms in the sectors were created in the city. These data once again illustrate the rapid growth of IT, business service outsourcing, and support activities in Sofia. The expansion of these sectors, is in fact the driving force behind the remarkable growth of Sofia’s economy in the last few years.

4. The Role of Small and Medium Businesses in Sofia’s Economy

As there is no way to directly measure the contribution of individual companies to the GDP of the city of Sofia, we instead use output for assessing the importance and the role of individual segments and economic activities.

In 2017, the output volume for Sofia reached BGN 60.9 billion or just over 36% of Bulgaria’s total output. Output is distributed relatively evenly between the different size groups, with a slight prevalence of companies with more than 250 employees (30% of the total output). It is important to note, however, that this predominance is even greater in Bulgaria as a whole – 37% of the total output is produced by large companies, a fact which further highlights the importance of small and medium enterprises for the economy of Sofia. Micro-enterprises and SME’s account for 70% of the total output.

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7 We won’t focus on the large companies, as there was only one large enterprise born in Bulgaria in 2016 (in the processing industry).
While big companies in Sofia produce 61% of the output in the energy sector and 47% in the manufacturing industry, micro-enterprises dominate the real estate sector with 73% of the output, and the sector of professional activities with 50%. The ICT sector is particularly interesting – despite the large share of micro and small businesses, almost half of the output is produced by large companies. This is an evidence of the intense competition and the dynamic environment in the sector. In comparison, micro enterprises are the leading producers in the construction sector, despite the relatively large volume of properties under development. This fact is probably also due to the practice among construction firms to register a new company for each new construction site.

Table 1 shows the relative share and the produced output of enterprises in Sofia, grouped by size and sector of economic activity.

Figure 3: Output produced in Sofia by size of the enterprises, in billions of leva/BGN, 2017.

Source: NSI

* data for 2017 are preliminary

Table 1: Sofia enterprises: Relative share of output according to size and sector of economic activity (2017) *

<table>
<thead>
<tr>
<th></th>
<th>Micro (%)</th>
<th>Small (%)</th>
<th>Medium (%)</th>
<th>Large (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (for all sectors)</td>
<td>24.75</td>
<td>20.05</td>
<td>24.96</td>
<td>30.24</td>
</tr>
<tr>
<td>Agriculture, forestry and fisheries</td>
<td>36.90</td>
<td>27.07</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Mining industry</td>
<td>62.33</td>
<td>17.50</td>
<td>20.17</td>
<td>N/A</td>
</tr>
<tr>
<td>Processing industry</td>
<td>7.31</td>
<td>16.44</td>
<td>29.08</td>
<td>47.18</td>
</tr>
<tr>
<td>Energy</td>
<td>13.24</td>
<td>5.55</td>
<td>20.64</td>
<td>60.57</td>
</tr>
<tr>
<td>Water supply, sewerage, waste</td>
<td>9.94</td>
<td>18.07</td>
<td>15.98</td>
<td>56.01</td>
</tr>
<tr>
<td>Construction</td>
<td>31.84</td>
<td>22.26</td>
<td>27.16</td>
<td>18.74</td>
</tr>
<tr>
<td>Trade</td>
<td>25.01</td>
<td>23.55</td>
<td>31.70</td>
<td>19.73</td>
</tr>
<tr>
<td>Transport, storage and mail</td>
<td>18.84</td>
<td>18.56</td>
<td>24.52</td>
<td>38.08</td>
</tr>
</tbody>
</table>
The distribution of output among small, medium and large enterprises in Bulgaria is much more uneven than it is in Sofia, especially in some economic sectors.

For example, while the processing industry in Sofia is distributed relatively evenly between the various enterprises in terms of size, in Bulgaria as a whole 60% of the output of the sector is concentrated in large companies. The reason for this is that smaller municipal economies are often dominated by one or two very large enterprises, usually with thousands of employees. The same applies, although to a lesser extent, to the energy sector, as well as to water supply, sewerage and waste management companies, where large firms produce over 50% of the output. The dominance of the large companies in the above economic sectors can be explained with market entry regulations.

The structure of Sofia’s economy, expressed in terms of the output produced, differs significantly from the structure of the economy expressed in terms of the number and size of the Sofia-based enterprises. In 2017, trade came first in terms of output, with 22.1% of the total output of Sofia, followed by the processing industry (14.1%), and ICT (13.5%). For Bulgaria’s economy as a whole, the leader in output was the manufacturing industry (37.2%), followed by trade and retail (13.7%). Between 2012 and 2017 micro enterprises had the fastest growing output in Sofia. Growth in output in the city was inversely proportional to the size of companies, with micro companies increasing their output by 29.2%, small companies – by 21.9%, the medium ones – by 21.6% and the large enterprises – by only 13.5%. This was true for most economic activities.

The ICT sector is again particularly interesting – the output of micro-companies has grown by 53%, while the output of large ones – by 6.8%. However, in the sector of professional activities and trade the situation is reverse; for the same period, the output of large companies increased by 51.6% and 38.2% respectively. This growth can be explained with the fact that several large business services outsourcing companies and retail chains are of key importance in these industries.

Construction is the only industry which experienced a decline in output among all groups of companies in 2016. Preliminary data for 2017 however show that the sector has made a sharp turn and has started to grow across all companies of all sizes.
6. Employment in Small and Medium Enterprises in Sofia

The employee distribution across firms of different sizes in Sofia is quite similar to the distribution of output.

Out of the total 755,000 people employed in Sofia in 2017, 285,000 people (or 37%) work in large companies, followed by 185,000 (or 24.5%) in micro enterprises, 147,000 in small enterprises and 138,000 in medium enterprises.

While in Bulgaria the major share (37%) of the workforce is employed by micro-enterprises, in Sofia the largest share (37%) is employed by large companies. Only 24.5% of Sofia’s workforce is employed in micro-enterprises vs. 37% for Bulgaria.

The situation is similar in terms of employment growth – employment has been increasing for companies of all sizes, but not at an equal rate. The fastest growth in the number of the employed was registered with large companies – 37.6%, followed by small companies with 8.8%.

*Figure 4 presents the dynamics of employment in the companies in Sofia.*

*Figure 4: Number of employed by company size in Sofia Municipality, 2012-2017.*

Source: NSI

* data for 2017 are preliminary

The employment growth rate, however, shows a higher correlation with the sector of the economic activity than with the size of the enterprise.

The growth in employment was quite homogeneous in terms of economic activities.

For example, while the number of the employed in ICT companies increased by 25-35% between 2012 and 2017, the employment growth in the manufacturing industry was only 6-7%.
One big exception is the sector of professional activities where almost all employment growth was concentrated in large companies, which experienced a 46.5% increase in the number of employees. In 2017, most of the labour force in Sofia was employed in one of the three main sectors:

- trade (23.7%),
- transport (12.6%) and
- ICT (11.2%).

For comparison, in Bulgaria, the biggest portion of the labour force was employed in the manufacturing industry (24.4%), followed by trade (22.3%) and transport (8.4%). Employment in Bulgaria is also more evenly distributed among the different sectors. This is partially due to the fact that some industries are entirely absent in Sofia (0.1% of all employees are involved in the mining sector, 0.6% – in agriculture).

Figure 5: Labor force in Sofia, distribution by economic activity, 2017

Source: NSI, preliminary data
Overall, small and medium businesses constitute 63% or nearly 2/3 of the total employment in Sofia. Over the last few years, however, large companies tend to create more jobs, which could affect the overall structure of the labour market in Sofia in the future.

7. Remuneration in Enterprises in Sofia
The average gross wage can vary significantly across enterprises of different sizes.

Medium-sized companies offer the highest average gross monthly salary in Sofia – BGN 1 471, which is very close to the average salary in the big companies – BGN 1 458.

Salaries in small companies and micro-enterprises are much lower – BGN 1 211 and BGN 873 respectively.

In this respect Sofia differs from the rest of Bulgaria, where, as a whole, the bigger the company - the higher the wages. Most probably this difference can be explained by the structural differences between Sofia’s economy and Bulgaria’s economy.

Most economic sectors in Sofia follow the principle that wages are higher in larger companies. In several of the key sectors of the economy in the capital – ICT, professional activities, administrative activities, trade, the highest salaries are offered in medium-sized companies that offer them.

Chart 6: Average gross monthly salaries in selected economic activities in Sofia Municipality, 2016, levs/BGN

Wage growth in Sofia between 2012 and 2016 was 33% on average and was remarkably constant among the four types of companies grouped by size. Medium-sized companies registered the fastest growth in salaries (33.1%) and large firms - the slowest (31.1%).
However, the differences are so small that in practice we cannot talk about different growth rates, but rather about a rapid growth of wages in all groups.

The increase can be explained with the strong competition between the firms to attract and retain qualified staff, as well as regulatory measures to raise the minimum wage and minimum insurable income threshold in the country.

The trend for wages increase is also very noticeable in the rest of the country. In Bulgaria, however, wages in large companies tend to grow slower (26.6%) than the average for the country (31.3%) and wage growth is again the fastest at medium-sized companies. The wage growth in Bulgaria, unlike that in Sofia is far from even among the different economic activities.

The fastest growth is registered in the sectors of administrative activities (53.5%) and education (44.4%), and the slowest – in the sectors of energy (7.6%) and culture (12.9%).

Wages are growing most rapidly in small enterprises from the sectors of ICT, education, trade and transport and in medium-sized companies from the sectors of administration, manufacturing, hospitality and restaurant industry.

Salaries in large companies grew the fastest only in the sector of professional activities as a result of the rapid development of business process outsourcing and the entry of large foreign players.

The pay gap between small and large non-financial enterprises is much smaller in the public sector – the lowest wages are in the medium-sized firms (BGN 992 per month), and the highest – in micro-enterprises (BGN 1 302 per month).

In the private sector, however, the pay gap is much larger, between 1 510 leva in the large enterprises and BGN 872 in micro-companies. Overall, the private sector registered a faster wage growth between 2012 and 2016 – around 32-33%.

8. Labour Productivity

One of the reasons for the large pay gap between small and large enterprises and economic activities lies in labour productivity – employers can afford to pay significantly higher wages in sectors where employees have high added value. The approach to productivity calculation taken here is the annual gross value added at factor cost of an employee, following the Eurostat preferred methodology.

In Sofia, the medium-sized companies have the most productive workers, with an average of BGN 40 500 gross added value (GAV) per year per employee in 2017. Large companies come next, with BGN 33 400 GAV per employee. Micro-companies are performing the worst, with lowest GAV of only BGN 27 930 per employee.

On the other hand, productivity is growing most rapidly at micro-companies – 60.4%, while the growth in productivity at large firms was the slowest – 16.1%.

The productivity gap between economic activities is not particularly significant.

The ICT sector is the leader with a GAV of BGN 54 300 per employee on average. The difference between the small and the large companies is also quite significant: the productivity reaches BGN 46 600 per employee in micro companies and BGN 59 000 per employee in the large companies.

The lowest productivity rates, according to NSI data, were registered in the hospitality higher than in the medium, but in the data for Sofia as a whole, the medium has a slight prevalence.
industry – BGN 15 000 per employee in the sector on average and as low as BGN 7 100 for micro-companies.

One possible explanation is the high share of the grey economy in the hospitality sector.

*Figure 7: Labour productivity and average wage by sector and size of enterprise in Sofia, 2016.*

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*Figure 7* illustrates the relationship between the average wage in individual economic activities and enterprise groups according to their size. Interestingly, especially in lower-performing sectors and companies, pay is rather sensitive to the productivity of employees. At higher productivity levels, the discrepancy between salary and value added per employee is greater, most likely due to the particularities of the specific activities.

\[ y = 0.3006x + 4.6739 \]

\[ R^2 = 0.4587 \]

*Source: NSI*
9. Conclusions

The review of the key data confirmed the vital importance of small and medium-sized businesses for Sofia's economy and its future development. The study has reached several key conclusions:

- Almost all enterprises in Sofia are micro- and small;
- In the case of micro- and small enterprises, the most rapid creation of new companies has been observed in recent years; SME-s, however, are the ones with the lowest long-term survival rate. However, the two-year survival rate is quite high, with nearly 4/5 of new businesses remaining on the market.
- The biggest number of small and medium-sized enterprises operate in the sectors of trade, professional activities and real estate;
- Micro-, small and medium-sized businesses account for 70% of the output in Sofia, and the trends of the last few years indicate that this share is likely to increase in the near future;
- Nearly two-thirds of all jobs in Sofia are created by small and medium-sized businesses. However, large companies are gradually increasing their share.
- Medium firms offer the highest pay in many key sectors of Sofia’s economy. In addition, wages in small and medium-sized enterprises are growing faster than in the big ones;
- Medium sized enterprises have the highest productivity, and the highest the wage levels. The fastest productivity growth, on the other hand is taking place among micro-enterprises.
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