THE IMPACT OF THE EQUITY CAPITAL AND TRADE CREDIT
FINANCIAL SOURCES ON THE COMPANY’S PERFORMANCES
SUSTAINABILITY

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ABSTRACT

The crucial aspect of mobilizing financial sources and savings to SMEs in the agribusiness sector and its supply chains towards sustainability and productive investment is of the most importance, what has motivated the research of this paper. Key findings of exploring the impact of two external sources of finance, trade credit and equity capital on the sustainability of the enterprises, are based on the literature review and the empirical research provided in Serbia in 2019. The positive influence of the researched sources of the financing as well as the conditions of this financing on the sustainability of these enterprises is confirmed. The contribution of the research results can be seen in the further improvement of the financial market framework for development of the external sources of finance, trade credit and equity capital in the context of entrepreneurial finance.

Keywords: agribusiness, trade credit, equity capital, financial conditions, SMEs, performance sustainability

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Introduction

The organization of agricultural production and services, with a defined time agenda for the transformation of the inputs, commodity market flexibility, the uncertain nature makes problems, if the financial environment support is not following the specific needs of the sector activities. (Walker, 1991; Ahmed, 1989).

SMEs and entrepreneurs in Serbia see the lack of capital for their sustainability and development as one of the main obstacles (Rajan & Zingales, 2003; Petersen & Rajan, 1995), what is more obvious in the agribusiness sector.

This should therefore influence both the availability and demand for different types of external funding for SMEs in the agribusiness sector and rural entrepreneurs.

In the European Union, the needs of SMEs for equity financing and trade credit had increased, 33% of them applied for trade credit, Figure (1). Trade credit has been a relevant type of financing in the last three years: 2016, 2017 and 2018, followed by equity capital, debt securities and other internal funds.

Figure 1. The relevance of types of financing for enterprises in the EU28 in 2016, 2017 and 2018.

According to Eurostat data for 2018 the retained earnings or sale assets were used by firms in some SEE countries as Croatia, 22%, in Bosnia and Herzegovina, 25% in last 6 months in 2018, in comparison with Serbia, with 15%.

Trade credit is used less in these three countries in 2018 in comparison with EU firms (from 4 to 6%), debt securities are used at the same level, as well as the equity capital (Figure 2).
In formulating the research subject the issues of the equity financing and trade credit as external sources of financing are identified, as well as the legal and business circumstances, from a legal institutional perspective; formal contracts, bankruptcy laws to define and enforced property rights.

In financial markets, scholars have argued that stronger legal (minority) shareholder rights, liability rules, and requirements for information disclosure, have favored the development of strong public equity markets. It also hence stimulated firms to use these markets as a funding channel, but the SMEs in agribusiness sector often rely on private equity, which is heavily dependent on well-developed public markets for liquidity and exit (Bowles, 2003).

Owing to this greater supply and hence lower cost of outside equity, the SMEs will tend to be more in favor of raising (private) equity capital in less developed financial institutional framework, like it is in Serbian case (Băncescu et al., 2019). That has motivated the authors of the paper to research the practice of the Serbian SMEs in the agribusiness sector on the usage of these two external sources of finance in the sustaining their business (More & Basu, 2013; Meltzer, 1960).

The research results are presented so that, after the Abstract with the key aim of the research, the Introduction with some trends in the sector financing is given, and the Theoretical framework on the financial sources is presented. The section with the Methods and materials presents the dataset of the empirical research, the range of variables, the findings and discussion and testing approach. The paper concludes with an elaboration of the implications of the results of the research to the rural financial market development in Serbia.
Theoretical framework

Farms, entrepreneurs and SMEs in agrobusiness, together with logistics and trade firms in the supply chain are considered one of the core engine for future growth in Serbia. However, to fulfill this potential, SMEs and rural entrepreneurs need a sustained supply of long-term funding (Clive, Srinivasan & Udry, 1997; Conning & Udry, 2005), can be described as fragmented (Diamond 1996; Besley, 1994). SMEs, however, tend to excessively rely on internal and short-term financing sources (Schmidt-Eisenlohr, 2013; Ramey, 1992).

In theory and practice, short-term financing has been established as not suitable for supporting SMEs making long-term corporate investments, in sustaining their innovation programs, and in achieving consistent growth (Wu, 2001). This has led policy makers to encourage SMEs to take greater advantage of long-term financing, trade and equity sources (Smith, 1980; Myers & Rajan, 1998; Myers, 1977).

In the equity financing firm characteristics, including industry composition, firm size, ownership type, and growth rates determine SME willingness to take on equity finance and their attitudes towards this form of finance.

The constraints in the availability of equity finance are a major determinant of use by SMEs. Equity financing is known to be particularly important for SMEs with high growth potential. For SMEs, equity financing normally includes greater involvement of the financing provider in the firm compared to the bank lending that SMEs rely on as their main form of long-term financing (Garcia-Teruel & Martinez-Solano, 2007; Hart & Moore, 1991; Hawawini, Viallet & Vora, 1986).

Equity providers, primarily invest in the future potential of the firm and as partial owners have an interest in, and some control over, how this value is created. The forms of equity financing that SMEs more often access is private equity investments, because the equity investors, for example, might differ with the SME on the strategic direction of the firm and seek to impose their own vision. This close relationship and the associated risks are likely to place trust at the center of SME attitudes towards equity providers. Trust in this case can be taken to mean SME confidence that equity investors will perform their role in a manner that is not detrimental to the firm as non-financial factors, vital in determining SME attitudes to financing choices.

Formal institutional development, such as the financial system, the legal system, or regulatory quality, determine rules for accountability and liability in financial transactions has been posited as one important cross-country explanation in this regard (Madestam, 2013). Researchers drawing on cultural relativity theory have built on the profitability gaps in formal institution studies and argued that culture can also drive SME financing behavior.

Trade credit is a very important external source of financing for SMEs, giving goods instead of cash and the opportunity for the enterprise to pay its receivables according to the contract defined terms and time (Schwartz, 1974). Conditions of trade credit
include the loan maturity and interest rate (Blazenko & Vandezande, 2003; Bougheas, Mateut & Mizen, 2009). Collateral may also be implemented contractually (Frank & Maksimovic, 1998).

Trade credit advantages are in information acquisition visiting the buyer’s premises more often, controlling the quality of the repayments, and permanent relationships with suppliers (Schwartz & Whitcomb, 1979; Mian & Smith, 1992; Ferris, 1981; Petersen & Rajan, 1994).

**Materials and methods**

The hypothesis of the research was that the equity capital and trade credit, as the sources of finance of an agribusiness enterprise further invested in fixed and working capital, innovation and human resource development have the impact on the sustainability of its performances.

In this research model, three variables are included: two independent and one dependent. Independent variables are 1. Equity capital and trade credit as sources of finance of business operations (abbreviated, FS), and 2. The conditions of financing business operations of the company (abbreviated, as FC) defined as investments of these sources in a fix, working capital, human resource and innovations. The revenue of the companies is defined as a dependent variable (abbreviated as, CR), which, according to the impact of independent variables can increase, sustain or decrease.

Basing on the dataset of the empirical research provided in Serbia (second quarter of 2019) on the 132 enterprises from the agribusiness sector, privately owned, as the sample, the practices of the usage of equity capital and trade credit financing as the sources of finance has been explored. The aim was to elaborate the impact of these financing on the sustaining business performances of SMEs.

The methodology used includes survey method with a questionnaire in a collection of empirical research data, methods of descriptive statistical analysis, regression analysis and multiple linear correlations.

Among 132 interviewed companies, 87 (0.65909) work in agribusiness production and 45 (0. 34091) in the supply chain sectors connected to the agribusiness, with the most activities on the domestic market, 105 enterprises from 132.

The level of the income of the enterprise in the previous year combined with the number of employees serves as two criteria for the SMEs according to the size. Data shows that the most of companies were small and micro, 53%, medium-size, 38%, and large 0,7% (which complies with the general structure of the enterprises in the agribusiness sector in Serbia.

So, 98 enterprises analyzed in the paper are privately owned (0.74242). Directors and owners were most of the respondents of the survey: 44 owners (0. 33333), 59 directors (0.44697), 16 managers (0.12121) and 13 consultants (0.09848). These data show the representativeness of the sample, and valuable results.
Table 1. Sample description.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sub-Level</th>
<th>Count</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company’s income in 2019</td>
<td>&lt; from €100.000</td>
<td>49</td>
<td>0.37121</td>
</tr>
<tr>
<td></td>
<td>from 100.001 to €500.000</td>
<td>44</td>
<td>0.33333</td>
</tr>
<tr>
<td></td>
<td>from 500.001 to €2,000.000</td>
<td>27</td>
<td>0.20455</td>
</tr>
<tr>
<td></td>
<td>from €2,000.001</td>
<td>12</td>
<td>0.09091</td>
</tr>
<tr>
<td>The origin of the income</td>
<td>Domestic market</td>
<td>105</td>
<td>0.79545</td>
</tr>
<tr>
<td></td>
<td>Foreign market</td>
<td>27</td>
<td>0.20455</td>
</tr>
<tr>
<td>The conditions/purposes where the enterprise has been invested in the equity capital and trade credit</td>
<td>Fixed assets &amp; working capital</td>
<td>91</td>
<td>0.68940</td>
</tr>
<tr>
<td></td>
<td>Innovation &amp; human resource development</td>
<td>41</td>
<td>0.31061</td>
</tr>
<tr>
<td>The sources of finance further investments impact on company’s financial performances in 2019</td>
<td>Increase</td>
<td>53</td>
<td>0.40152</td>
</tr>
<tr>
<td></td>
<td>Sustain</td>
<td>66</td>
<td>0.50000</td>
</tr>
<tr>
<td></td>
<td>Decrease</td>
<td>13</td>
<td>0.09848</td>
</tr>
</tbody>
</table>

Studied selected sources of finance, equity and trade credit 68.9% companies further invested (*here treated as conditions of finance*) in the fiscal assets and working capital support, and 31% of the sample, in innovation and human resource development. This result outlines from the nature and time log of the resources, as well a from the basic reasons for borrowing (Slovin, Sushka & Polonchek, 1993).

Key findings

In the created model of the research is given the opinions of the representatives of the enterprises from the agribusiness sector on the use and impact of the external sources of finance, equity and trading on their sustainability. The results elaborated through the interpretation of Person’s correlation, are given in Figure 3.

The findings show that the directions of all possible links between independent and dependent variables are positive, which supports the positive correlation between these variables.

The large variability is between the conditions of financing (FC), and equity capital and trade credit as the sources of finance (FS), which amounts to 0.5701 and is medium strong. With 32.50% can be predicted the conditions of financing in coordination with the internal sources of finance.

The variation between the independent variables – sources of financing (FS) and independent variable - the conditions of financing (FC) amounted to 0.6246 and is medium strong.

The variation between the independent variables – conditions of financing (FC) and dependent variable amounted to 0.6528 and is medium strong.
With 42.61% can be predicted the revenues of the company in coordination with the conditions of financing. The multiple correlation coefficient is 0.850. Multiple determination of r is 0.722. That means that 72.2% variability of independent variable FS and CF impacts the dependent CR variable, as it is displayed in Table 2.

Or, confirms the hypothesis of the research - that there is a positive impact of the internal sources and conditions of financing on the company’s revenues/performances.

### Table 2. Correlation of the research model

<table>
<thead>
<tr>
<th></th>
<th>FS</th>
<th>FC</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS</td>
<td>1.0000</td>
<td>0.5701</td>
<td>0.6246</td>
</tr>
<tr>
<td>FC</td>
<td>0.5701</td>
<td>1.0000</td>
<td>0.6528</td>
</tr>
<tr>
<td>CR</td>
<td>0.6246</td>
<td>0.6528</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Because the score of statistical importance resulted to \( p<0.0001 \), the hypothesis of the research \( H. r^2=0 \) can be confirmed (Table 3, ANOVA test).

### Table 3. Test

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2</td>
<td>31.961110</td>
<td>15.9806</td>
<td>70.0312</td>
</tr>
<tr>
<td>Error</td>
<td>129</td>
<td>29.436774</td>
<td>0.2282</td>
<td>Prob &gt; F</td>
</tr>
<tr>
<td>C. Total</td>
<td>131</td>
<td>61.397884</td>
<td></td>
<td>&lt;.0001*</td>
</tr>
</tbody>
</table>

In Table 4, is specified the size of the contribution of independent variables: FS, FC in the prediction of dependent variable CR. According to the findings, it can be concluded that the most contribution to the company’s performances make: 1. conditions of financing - their further usage in development purposes, with 0.43958

The factor of the variance increase is 1.4814044.

The hypothesis of the research can be confirmed, as the trade credit and equity capital, and financial conditions of their further investment significantly affect the revenues of the company and its respective performances, the most in their sustainability.

### Table 4. Coefficients for variables: FS, FC & CR

| Term    | Estimate    | Std Error | t Ratio | Prob>|t| | Std Beta | VIF |
|---------|-------------|-----------|---------|-------|-----------|------|
| Intercept | 1.646881 | 0.223448 | 7.37 | <.0001* | 0         |      |
| FS      | 0.3289618 | 0.065264 | 5.04 | <.0001* | 0.37401  | 1.4814044 |
| FC      | 0.3717611 | 0.062753 | 5.92 | <.0001* | 0.43958  | 1.4814044 |

The multiple regression equation is defined by further formulas (1, 2):

\[
y = 1.646881 + 0.3289618 x_1 + 0.3717611 x_2
\]  

or

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The company’s revenues = $1.646881 + 0.3289618 \times \text{Source of finance} + 0.3717611 \times \text{Conditions of finance}$

The regression equations for the formed model is illustrated in Figure 3.

**Figure 3.** Multiple regression equation for the model FS, FC & CR

*Conclusions*

The practices on the usage, practice and terms of borrowing of the equity capital and the trade credit as external sources of financing for covering the corporate debt of SMEs have been researched. (Hill, Kelly & Lockhart, 2012; 2013).

As such, the commercial relationship between buyers and suppliers, the characteristics of the traded good, providers of the equity capital play a crucial role in determining their existence, cost, and how the contracts are enforced. Being able to receive these financial sources helps SMEs from the sector manage their liquidity needs, sustain business, or further invest in innovation and human resources development (Eck, Engemann & Schnitzer, 2015; Martínez-Sola, García-Teruel & Martínez-Solano, 2013; Mateut, Mizen & Ziane, 2015).

A major determinant of use by SMEs equity finance and trade financing is their availability. Equity financing is further known to be particularly important for SMEs in the agribusiness sector with high growth potential (Bodnaruk, O’Brien, & Simonov, 2016). For SMEs, equity financing normally includes greater involvement of the financing provider in the firm compared to the bank lending that SMEs rely on as their main form of long-term financing (Fazzari & Petersen, 1993).

The conclusions are drawn from the literature and practices of SMEs, as well as from the opinion of the researched sample of the SMES on the impact of the trade credit and equity financing on the sustainability of the SMEs in the agribusiness sector in Serbia. The results of the empirical research imply a positive impact of the equity and trade
credit financing on SMEs sustainability, giving the advantage of the conditions of the financing. That confirms the value of the research results for further work on the issues of the entrepreneurial rural financing issues (Smith, 1987; Menichini, 2011; Love & Zaidi, 2010).

Financial stability governs the extent to which rural SMEs and entrepreneurs will trust their savings to financial institutions or actively participate in public markets (Wilner, 2000). Of particular relevance for SMEs, lower corporate gains taxes and quality of governance are identified in the literature as important drivers of greater preference of SMEs in the agribusiness sector in Serbia for, external equity and trade credit financing.

The limitations of the research are seen in not including the issues of the trust to be explored as a more relevant perspective on culture for SME attitudes towards equity and trade financing, as well as showing how trust is also linked to the institutional context (Uchida, Udell & Watanabe, 2013).

Future development of the institutional, legal and sources of finance of the rural financial market in Serbia, as well as its the capacity building, would be of great importance for the growth and sustainability of the SMEs in the agribusiness sector. (Franks & Sussman, 2005). It would have the positive influence on the increasing the private sector environment and cost-effectiveness of financial intermediaries in the rural financial market in Serbia.

Conflict of interests

The authors declare that there is no conflict of interest.

Literature


