Triggers of Different Types of Firm Growth

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ORIGINAL ARTICLE

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Abstract

Authors define and explain firm growth as its transition from current position to short-term or long-term equilibrium motivated by profit maximisation. They allocate growing firms into six groups according to their growth type based on different dimensions of firm growth, i.e. growth of labour, growth of capital, growth of the volume of business, and growth of profit. Given that the typology of growing firms employed for the purpose of this paper is based on micro-economic theory, the triggers and their hypothesized relevance in explaining short-term and long-term growth patterns are also grounded in microeconomic theory. Accordingly, the authors study growth triggers in the form of the firm's technical and allocative (in)efficiency, its disequilibrium market position within a respective industry and the industry's market position relative to other industries. They thus assume that firm growth is either based on the utilization of firm's internal resources or is a result of favourable market conditions and hypothesize that the probability of a firm belonging to a particular type of growth is explained (i) with firm's internal efficiency, (ii) those market conditions that can be altered by the decisions adopted by management and (iii) those market conditions that are independent from the actions of management. The authors explore these triggers of three types of short-term growth, long-term growth, unsuccessful growth and downsizing, using data for 41,529 Slovenian firms in the 2007−2012 period. Results show that firm growth in Slovenia exhibits theoretically expected links between growth types and their triggers and also have relevant managerial implications.

Introduction

In this paper we explore triggers of different types of firm growth. We identify six different growth types and internal and external growth triggers based on microeconomic theory.

In our allocation of firms according to their growth type we do not follow the typology of firms' growth paths relating to survival, continuousness of growth, turning points, reversals and cumulative growth by Garnsey et al. (2006) or the typology by McKelvie and Wiklund (2010) discussing organic, acquisition and hybrid modes of growth nor the approach adopted by Delmar et al. (2003) who based on cluster analysis used 19 measures of firm growth over a 10-year period to identify seven different types of firm growth patterns. By following the work of Tajnikar et al. (2016) and Došenović Bonča et al. (2018) we study different types of growth based on microeconomic theory and set a priori criteria for allocation of firms into distinct groups. We view the firm's growth as its transition from current disequilibrium position to its short-term or long-term equilibrium motivated by profit maximisation. We approach firm growth as discontinuous (D'Elia et al., 2019) with firms shifting between equilibrium and disequilibrium states and exhibiting altering unsystematic growth types in their attempts to move closer to equilibrium.

We thus explore six different firm growth types according to microeconomic theory including three types of short-term growth, long-term growth, unsuccessful growth and downsizing identified based on data for 41,529 different Slovenian manufacturing and service firms in the 2007−2012 period (175,232

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observations). As shown in the empirical section of the paper, a combination of growth indicators is used to allocate firms into different groups. A zero-growth rate of selected growth indicators sets the boundary between non-growing and growing firms.

In this paper we assume that the studied six growth types have different triggers that pertain to the firm's technical and allocative efficiency, its disequilibrium market position within the respective industry and the industry's market position relative to other industries. The hypotheses about the links between different growth types and their triggers are based on microeconomic theory and their empirical analysis on the case of Slovenian firms.

1 Triggers of different firm growth types

Firm growth continues to receive a lot of attention in empirical research from different perspectives including the resource-based, the motivation, the strategic adaptation and the configuration perspectives (Brown & Mawson, 2013). Only the configuration perspective deals with growth as a 'process' building on Penrose's (1959) definition of growth as a process of internal development. Much of the existing firm growth literature, however, has adopted Penrose's (1959) first definition of growth as an outcome. This is why there has been a lot of focus on how much firms grow, rather than examining their internal growth processes (McKelvie & Wiklund, 2010).

The output-focused view on firm growth is widely recognized as valuable in understanding firm growth and how it relates to diverse determinants of growth and characteristics of firms ranging from size and age (e.g. Coad, 2009), innovation (e.g. Coad & Hölzl, 2012), business cycle (e.g. Higson et al., 2002, 2004), profits (e.g. Coad, 2007, 2010; Lee, 2014; Parker et al., 2010), market value (e.g. Geroski et al., 1997), characteristics of the entrepreneur (e.g. Nichter & Goldmark, 2009), type, export orientation and ownership of firms (e.g. Beck et al., 2005; Harhoff et al., 1998; Robson & Bennett, 2000), minimum efficient scale (Audretsch, 1995), degree of competition (Geroski & Gugler, 2004; Sutton, 2007), firm's country of origin (e.g. Bartelsman et al., 2009; Bravo-Biosca et al., 2013; Geroski & Gugler, 2004) and a wealth of other firm-level, industry-level and macroeconomic variables. More recent literature also highlights most common myths about particularly high growth firms and identifies a clear mismatch between how policy makers perceive fast growing firms and what they look like in reality (Brown et al., 2017).

McKelvie and Wiklund (2010) argue that "despite hundreds of studies into explaining firm-level growth differences … researchers have been unable to isolate variables that have a consistent effect on growth across studies" (p. 264). This view is reinforced by Coad and Hölzl (2012) noting that the vast body of literature including many different factors as explanatory variables in growth regressions with low R^2 failed to provide "a thorough explanation of the growth rates experienced by firms" and that "the majority of the variance in growth rates in within individual firms over time, rather than between different firms" (pp. 331–332). By investigating the influence of the economy-wide common shock on the cross-correlations of the growth rates, Alessi et al. (2013) concluded that the unique common factor explains only a fraction, i.e. 20%, of the total firm growth variance.

This has shifted the focus from measuring how much a firm grows to exploring the more fundamental question of how it is growing. The literature has evolved from traditional stage models to approaching firm growth as a discontinuous phenomenon and an unfolding developmental non-liner process prone to disequilibrium, disruptive events and setbacks in growth paths within firms (Brown & Mawson, 2013; Garnsey et al., 2006). Bessant et al. (2005) explore "tipping points" such as people management, management strategy and operational improvement to explain what pushes a firm's growth trajectory upwards. Vohora et al. (2004) use the notion of "critical junctures" and Brown and Mawson (2013) address endogenous, exogenous and co-determined "trigger points" and note that "while all firms are likely to encounter trigger points at some point in their lives, not all will capitalise on these events successfully" (p. 283).

Alternatively to Brown and Mawson (2013) that view new product offering or change in company ownership as examples of endogenous trigger points, technological development and product failure in the marketplace as exogenous trigger points and entry into a new joint venture or firm acquisition as co-determined trigger points, we seek to explore different internal and external triggers that push firms away from equilibrium, hence creating an incentive for the firm to adjust in order to maintain or improve its business performance. Firm growth is thus viewed according to microeconomic theory and emerges because the firm is in disequilibrium either in the short-term (with some inputs fixed) or in the long-term (with the possibility to adjust all employed inputs).

This approach is motivated by the point made by Coad and Guenther (2014) that as the focus is on

Brown and Mawson's (2013) "trigger points" such as diversification, for example, "there is no explicit empirical or theoretical consideration integrating the firm's situation preceding the diversification event" (p. 858). Given that the typology of firm growth types used in this paper is based on microeconomic theory, we also turn to microeconomic theory of the firm to explore developments within firms prior to the resulting specific growth path.

According to microeconomic theory, such growth triggers are either internal or external. Internal triggers pertain to how firms use their limited resources and to the resulting costs. It is the management's role to continuously implement those techniques that enable the firm to maximise its technical efficiency and to take input prices into consideration when adjusting a combination of inputs to keep assuring allocative and cost efficiency. Firm growth stems from advantages in technical and allocative efficiency, hence increasing profitability. Firm growth fuelled by efficiency improvements results in lower costs and higher profits as the firm's production and size increase. External triggers are market conditions that can be only partly influenced by management but are often given and thus require a response and adjustments within firms. Higher demand and the resulting firm growth can emerge either for all firms in a certain industry due to market imbalances or only for some firms within a specific industry due to created competitive advantages and superior position created through imperfect competition. Growth triggered by market conditions increases profitability of firms that successfully exploit favourable market conditions.

In this paper we assume that different internal and external triggers are associated with differing types of firm growth. We observe six different firm growth types to identify which disequilibrium and disruptive events change growth paths of firms. We surmise that internal and external triggers may have conflicting impacts on growth of firms, thereby resulting in their divergent and unsystematic growth paths.

2 Empirical model

2.1 Data and methodology

We use the Slovenian firms' financial statements database collected by the Agency for Public Legal Records and Related Services of the Republic of Slovenia. This database covers the population of firms registered in Slovenia. Our analysis is based on data for 41,529 different Slovenian manufacturing and service firms (i.e. industries from codes 10 to 83 of the 2-digit NACE classification) data in the 2007−2012 period and includes 175,232 observations.

To study the link between triggers of growth and the firm's placement in a particular group according to the growth type, we use logistic regression (Greene, 2003). We estimate seven logit models, one for each of the below defined firm groups according to their growth type $Gtype_{it}$. The dependent discrete choice variable in each logit model takes the value of 1 for firms from a particular group with a specific type of growth, and 0 for all other firms.

To fully exploit the panel nature of our dataset and at the same time to implicitly control for the unobserved firm heterogeneity, we apply the fixed effects logit model (Chamberlain, 1980), where intercepts are used instead of fixed constants:

$$PR(y_{it} = 1) = \frac{\exp(\alpha_i + x_{it}\beta)}{1 + \exp(\alpha_i + x_{it}\beta)}. \tag{1}$$

The empirical specification follows our hypothesis that firm's growth has either internal triggers, i.e. internal efficiency of utilising firm's resources, and external triggers referring to market conditions.

2.2 Types of firm growth and assumptions about their triggers

We define the firm's growth type based on four dimensions of firm growth used also by Coad, Cowling and Siepel (2017) in their investigation of growth processes of high-growth firms, i.e. employment and sales growth, growth of operating profits, and growth of assets. In this paper growth of labour (L) is measured as an annual change of the number of employees, growth of capital (K) in terms of the annual change in the value of fixed assets (property, plant and equipment) and non-tangibles, growth of the volume of business activity (TR) as the annual change in business revenues, and growth of profit (Π) in terms of the annual change in EBIT. We follow the approach by Tajnikar et al. (2016) and Došenović Bonča et al. (2018) and use the following criteria for allocating growing firms into six groups, similar to Tajnikar et al. (2016):

- $L \leq 0$ and $K \leq 0$ and $TR \geq 0$ and $\Pi > 0$ for firms with short-term growth based on improved capacity utilisation (G1);
- $L > 0$ and $K \leq 0$ and $TR > 0$ and $\Pi > 0$ for firms with short-term growth based on labour (G2);
- $L \leq 0$ and $K > 0$ and $TR > 0$ and $\Pi > 0$ for firms with short-term growth based on capital (G3);
- $L > 0$ and $K > 0$ and $TR > 0$ and $\Pi > 0$ for firms with long-term growth (G4);

- L > 0 and K > 0 and Π ≤ 0 for firms with unsuccessful growth (G5);
- L < 0 and K < 0 and Π > 0 for downsizing firms (G6).

All other firms not satisfying any of the above criteria are defined as non-growing firms (G7).

In Table 1, we can observe changes in the structure of different types of firm growth through the economic cycle in Slovenia. The pre-2008 period was marked by economic recovery and surging expansion, the phase of 2008−2009 is the crisis period of rapid contraction, while the phase after 2010 is the period of volatile recessions with 2010−2011 indicating economic recovery which subsequently reversed into the moderate contraction and negative GDP growth rates (Tajnikar & Došenović Bonča, 2018). Shares of firms from all growth types decreased and the share of non-growing firms increased sharply with the economic crisis onset in Slovenia in 2009. To capture time specific impacts, the model specification includes also the annual dummy variable set for the 2007−2012 period.

We assume that the listed six types of growth are all influenced by efficiency and market conditions but in different ways. The G1 type of growth that does not alter the combination of employed inputs is assumed to be a response to the firm's lagging behind in technical efficiency or emerges due to favourable conditions of the respective industry or the firm's advantage within the industry. Growth of firms in groups G2 and G3 (that alters the combination of inputs) is expectedly triggered by allocative inefficiency or occurs due to advantageous conditions within the industry or relative to other industries. Growth of firms from the G4 group is assumed to be due to higher cost efficiency motivated by the need to successfully undergo the investment cycle. Favourable market conditions, particularly relative to other industries are believed to fuel this type of growth. The hypothesis regarding unsuccessful growth of firms from the G5 group is

that it emerges due to pressures to increase cost efficiency to support investment activities and unfavourable conditions of the industry or the less advantageous position of the firm within the industry due to wrongly estimated market developments. The assumed triggers of downsizing for firms from the G6 group include low cost efficiency and poor market conditions, particularly for the respective industry relative to other industries.

2.3 Internal triggers: firm efficiency estimation

We study the link between firm's internal efficiency and its growth type in terms of firm's technical and allocative efficiency. We do not explore firm-specific and other attributes as determinants of efficiency (e.g. Vincent Mok & Yeung, 2005) but efficiency as a determinant of a specific growth type. This allows us to investigate whether a specific growth type is triggered more by the needed adjustments in the quantity of inputs per unit of output, i.e. technical efficiency, or by altering input combinations enabling cost minimisation, i.e. allocative efficiency.

We use the Stochastic Frontier Analysis (hereinafter SFA) to estimate the technical and allocative efficiency of firms from our database. Each firm i with a production function q in time t may produce less than it is possible with inputs $\mathbf{z}_{it}$ and given technology, because of a degree of inefficiency ϵ_{it} (Kumbhakar & Lovell, 2000).

The panel nature of the applied dataset allows us to distinguish between firm's inefficiency and unobserved firm heterogeneity. We specify our technical efficiency model as:

$$ln\, q_{ijt} = f\left(ln\, L_{ijt}, ln\, K_{ijt}, D.industry_j\right) \qquad (2)$$

where q_{ijt} represents the value of business revenues, L_{ijt} is the average number of employees and K_{ijt} is the value of fixed assets of a firm i from industry j in the year t. $D.industry_j$ is a set of dummy variables based on the 3-digit NACE Rev. 2 classification used to explicitly account for the differences in the production function between industries. The value of business revenues and fixed assets are expressed in real terms, i.e. in fixed prices from 2007.

To calculate firm's allocative efficiency, we first estimate its cost efficiency as:

$$ln\, C_{ijt} = f\left(ln\, q_{ijt}, ln\, P_{L.jt}, ln\, P_{K.jt}, D.industry_j\right) \qquad (3)$$

where C_{ijt} represents the value of firm's business costs, $P_{L.jt}$ is the price of labour in terms of average industry level annual labour cost per employee and $P_{K.jt}$ is an average price of capital in industry j in the

Table 1. Structure of firms by their growth type and year.

Growth type	2007	2008	2009	2010	2011	2012	Pooled
G1	5.7%	5.0%	2.7%	3.6%	3.8%	2.8%	3.9%
G2	8.1%	6.7%	3.8%	4.9%	5.4%	4.4%	5.5%
G3	7.3%	6.7%	2.8%	4.0%	4.5%	3.4%	4.7%
G4	10.6%	9.7%	3.6%	4.7%	5.4%	4.6%	6.3%
G5	9.7%	10.2%	7.8%	6.4%	6.5%	6.2%	7.7%
G6	7.6%	7.2%	7.7%	9.8%	9.9%	11.4%	9.0%
G7	51.0%	54.4%	71.7%	66.5%	64.5%	67.2%	62.8%
Total number	27,571	28,242	29,920	30,174	30,326	30,135	176,368

Source: Own research.

year t. Price of capital $P_{K.jt}$ is defined following Ponikvar, Tajnikar, and Pušnik (2009) as:

$$P_{K.jt} = \frac{depreciation_{jt} + interest_{jt}}{fixed\ assets_{jt}}. \qquad (4)$$

We apply the Cobb-Douglas functional form for both the production and cost function (Kumbhakar & Lovell, 2000). Considering that cost efficiency is calculated by multiplying technical and allocative efficiency estimators, the firm's efficiency enters our model specification separately as technical efficiency TE_{it} and allocative efficiency AE_{it}.

In both technical and cost efficiency models, we use the time-varying decay specification. In our case, the technical efficiency model shows that on average technical inefficiencies of the observed firms increased throughout the analysed 2007–2012 period. On the contrary, the SFA model for cost efficiency implies an increasing cost efficiency of observed units, i.e. firms in the analysed period. Measures of technical and allocative efficiency enter our empirical model equation with one-year lags to avoid potential endogeneity between firm growth and its efficiency. The technical and allocative efficiency variables (TE and AE, respectively) are continuous variables that can take values between 0 and 1. Overall mean of the TE variable included in our model takes the value of 0.815 and overall mean of the AE variable 0.727. The average firm in the Slovenian economy could thus reduce its inputs for a given output level by 18.5%, while using optimal input combinations would decrease its costs by 27.2%. There is some variation between estimated average TE and AE scores for groups of firms with different growth types. Average TE scores for different groups of firms range between 0.785 for non-growing firms and 0.834 for firms with firms with short-term growth based on labour (G2). Average AE scores range between 0.678 for downsizing firms (G6) and 0.748 for firms with short-term growth based on impeded capacity utilisation (G1).

2.4 External triggers: capturing market conditions

In addition to (in)efficiency also changed market conditions can trigger firm growth. To capture market conditions, we assume that in a perfectly competitive economy a long-run equilibrium is a situation, in which factor returns, i.e. returns on capital r and returns on labour w, are equal across all firms and all industries. Any situation in which an individual firm has below or above industry average returns on labour and/or capital is thus considered as a disequilibrium that can trigger the

firm to undergo a specific type of growth. Similar processes are trigged in disequilibrium situations in which an individual industry's wage and profit rates diverge from the economy's average wage and profit rates.

As shown by Pušnik (2008) and Došenović Bonča et al. (2015), sixteen alternative situations can be identified based on a comparison of the firm's and industry's wage and profit rates and a comparison of the industry's and economy's wage and profit rates. For the purpose of this paper, however, we use returns to labour and returns to capital of individual firms and industries to construct two dichotomous variables, i.e. $industry\_to\_economy_{jt}$ and $firm\_to\_industry_{it}$.

We assume that the average industry-level factor returns exceed the average factor returns of the entire economy in industries with more favourable market circumstances compared to the economy as a whole. In such favourable market circumstances, market demand surplus allows all firms in such an industry to grow faster compared to an average firm in the economy. This aspect of market conditions is exogenous to the firm. In our model, we use the variable $industry\_to\_economy_{jt}$ to measure the position of an industry relative to the entire economy in terms of factor returns. Returns to labour are measured as cost of labour (remuneration) per employee and returns to capital as the ratio of profits before interests and tax to firm's assets. As shown in Table 2, variable $industry\_to\_economy_{jt}$ takes the value of 1 when the average industry-level factor returns of at least one factor (either labour or capital or both) is above the economy's average factor return. An industry is considered to have an inferior position when both labour and capital industry-level factor returns are below average compared to the averages in the economy. In such case, the variable $industry\_to\_economy_{jt}$ takes the value of 0.

Similarly, firm-level factor returns exceed average returns earned in an industry when a firm can create more favourable business conditions for itself

Table 2. Position of the industry relative to the entire economy.

Value of $industry\_to\_economy$ variable	Industry level factor returns compared to economy's average factor returns
1	$r_{jt} > r_{SI.t}$ and $w_{jt} > w_{SI.t}$
1	$r_{jt} > r_{SI.t}$ and $w_{jt} < w_{SI.t}$
1	$r_{jt} < r_{SI.t}$ and $w_{jt} > w_{SI.t}$
0	$r_{jt}\ s < r_{SI.t}$ and $w_{jt} < w_{SI.t}$

Note. r_{jt} = average industry-level return to capital,
$r_{SI.t}$ = average return to capital in the Slovenian economy,
w_{jt} = average industry-level return to labour, and
$w_{SI.t}$ = average labour return in the Slovenian economy.
Source: Own.

compared to its industry peers. We measure a firm's position relative to its competitors within the industry with the variable *firm_to_industry*$_{it}$. This aspect of market conditions can be, at least to a large extent, considered endogenous to the firm as a result of the firm's management. As shown in Table 3, the variable takes the value of 1 for the above performing firms relative to their peers, i.e. when a firm-level factor returns of at least one factor (i.e. labour or capital or both) are above average compared to the average industry-level factor returns. It takes the value of 0 for firms characterised by below average factor returns of both labour and capital.

The mean of the dichotomous variables measuring the position of an industry in the economy (*industry_to_economy*$_{jt}$) and the position of a firm within its industry (*firm_to_industry*$_{it}$), included in our model, show us the share of industries with factor returns above the economy average, and the share of firms with factor returns above the industry average. Accordingly, almost 73% of analysed firms operate in industries with above average factor returns compared to the economy's average. The share of such firms is highest (82.1%) in the group of firms with short-term growth based on increased capacity utilisation (G1) and lowest (70.3%) in the group of firms with unsuccessful growth (G5). Further, a bit less than 48% of firms earn higher factor returns compared to the average factor returns of their peers. The share of such firms is the highest (69.3%) in the group of firms with long-term growth (G4) and lowest (41.1%) in the group of non-growing firms.

3 Results and discussion

In Table 4, we show the regression coefficients of the fixed effect logit regression estimations based on firm grouping according to specific growth type. Each column represents results of one logit model where we study the triggers of a specific type of growth. The dependent variable in these logit models thus takes the value of 1 for firms that belong to the group with a specific growth type and 0 for all other firms from the analysed dataset.

As shown in Table 4, short-term growth based on increased capacity utilisation (G1) is more likely for more efficient firms, which is not in line with the assumptions outlined in Section 2.2, and as expected operating in favourable market conditions. This implies that the growth of firms from the G1 group is fuelled either by improvements in technical and to a lesser degree allocative efficiency or emerges in firms due to excess demand. This type of growth is triggered by excess demand characteristic for the industry as a whole and also for firms outperforming their competitors. Both market conditions and efficiency result in higher profits.

Short-term types of growth based on either labour (G2) or capital (G3) are linked to favourable market conditions (with a stronger impact of the firm's position relative to its peers), superior technical efficiency and inferior allocative efficiency. Results imply that if excess demand for the industry relative to other sectors does not enable firm growth, firms achieve growth by creating and exploiting competitive advantages within their respective industries. Results also indicate that this type of growth is associated with the firm's achieved superior technical efficiency relative to other firms. The latter results through the firm's technological advancements enabling the firm to not only produce more with given resources but to expand at least some of the engaged inputs. Estimated coefficients for allocative efficiency further indicate that these types of growth are motivated by the benefits resulting from adjustments in labour to capital ratios leading to improved allocative efficiency and lower costs. Completive advantages and improved allocative efficiency result in improved profitability.

While according to the assumptions from Section 2.2, long-term growth (G4) is expectedly associated with pressures to increase cost efficiency and favourable market conditions, particularly relative to other industries, empirical results indicate a slightly different conclusion. Long-term growth is not triggered by technical (in)efficiency but is linked to favourable market conditions with a stronger effect of the firm's position relative to its competitors. Firms with this type of growth are also characterised with lower allocative efficiency. Given that allocative efficiency estimations enter our model with a time lag, this may reflect the fact that it takes some time for long-term growth to result in expected output expansion. Lower allocative efficiency is thus also a trigger of firm growth that is intended to improve firm performance. However, profit growth results primarily due to favourable market conditions.

Table 3. Position of the firm relative to its industry.

Value of *firm_to_industry* variable	Firm-level factor returns compared to industry-level factor returns
1	$r_{it} > r_{jt}$ and $w_{it} > w_{jt}$
1	$r_{it} > r_{jt}$ and $w_{it} < w_{jt}$
1	$r_{it} < r_{jt}$ and $w_{it} > w_{jt}$
0	r_{it} s $< r_{jt}$ and $w_{it} < w_{jt}$

Note. r_{it} = firm's return to capital,
r_{jt} = average industry-level return to capital,
w_{it} = firm's average return to labour, and
w_{jt} = average industry-level return to labour.
Source: Own.

Table 4. Conditional fixed-effects logistic regression for each growth type.

Pr (Gx)	G1	G2	G3	G4	G5	G6	G7
TE (-1)	0.678***	0.199***	0.279***	−0.132	−0.286***	−0.141**	−0.134***
	(0.0842)	(0.0748)	(0.0797)	(0.0782)	(0.0699)	(0.0625)	(0.0400)
	[0.0254***]	[0.0103***]	[0.0124***]	[-0.00773*]	[-0.0205***]	[-0.0114**]	[-0.0294***]
AE (-1)	0.0270***	−0.0378***	−0.0162***	−0.0516***	−0.0595***	−0.00937***	0.0336***
	(0.00376)	(0.00547)	(0.00548)	(0.00532)	(0.00453)	(0.00318)	(0.00244)
	[0.00101***]	[-0.00196***]	[-0.000721***]	[-0.00301***]	[-0.00428***]	[-0.000757***]	[0.00738***]
Market_vs_ economy	0.658***	0.165***	0.385***	0.105***	−0.174***	−0.0600***	−0.176***
	(0.0344)	(0.0246)	(0.0275)	(0.0239)	(0.0209)	(0.0195)	(0.0123)
	[0.0247***]	[0.00854***]	[0.0171***]	[0.00610***]	[-0.0125***]	[-0.00484***]	[-0.0386***]
Firm_vs_ market	0.630***	0.830***	0.989***	1.041***	−0.101***	0.194***	−0.792***
	(0.0270)	(0.0229)	(0.0250)	(0.0225)	(0.0185)	(0.0178)	(0.0109)
	[0.0236***]	[0.0429***]	[0.0439***]	[0.0607***]	[-0.00726***]	[0.0157***]	[-0.174***]
Time dummy set	yes	yes	yes	yes	yes	yes	yes
Log pseudolikelihood	−27858.115	−35860.464	−31488.934	−38785.204	−46985.972	−51526.376	−108672.73
LRχ^2 (9)	1167,84***	1865,89***	2391,92***	4767.31***	1969.35***	1463.36***	9088.58***
Observations	172,695	172,695	172,695	172,695	172,695	172,695	172,695

Note. Robust standard errors in round brackets; marginal effects dy/dx in square brackets; ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.
Source: Own research.

This conclusion is reinforced by the results for firms with unsuccessful growth (G5). Unsuccessful growth results due to harsh market conditions for both the industry relative to other sectors and for the firm within its industry. In such conditions leading to contractions of output levels, firms also demonstrate both technical and allocative inefficiency resulting in lower profits.

Some similar conclusions can be drawn for triggers of downsizing (G6). Downsizing is characteristic for inefficient (both technically and allocatively) firms with a favourable position within their respective industry but operating in less attractive industries. Low technical and allocative inefficiency are thus triggers of this type of growth. For the G5 group of firms, low technical and allocative efficiency are a consequence of unsuccessful growth. For the G6 type of growth, however, inefficiency coupled with the firm's potential to maintain its competitive advantage is a trigger of growth that improves profitability.

Non-growing firms are technically inefficient firms with lagging performance compared to competitors within their respective industry and also unfavourable market conditions characteristic for the industry as a whole. Results indicate that firms are unable to overcome these limitations even with their efforts for improved allocative efficiency.

4 Conclusions

We explored different internal and external triggers that incentivize firms to maintain or improve their business performance and move towards equilibrium in six different growth paths as defined by microeconomic theory. The studied growth triggers include the firm's technical and allocative (in)efficiency, its market position within a respective industry and the industry's market position relative to other industries. As shown in Section 2.2 of the paper, we based our assumptions about which triggers are associated with different growth types on microeconomic theory also. The hypothesized links between firm efficiency and market positions on the one hand and studied six growth types on the other hand were confirmed using the case of the investigated Slovenian firms, but the results are applicable beyond the national context given that growth types and triggers are based on microeconomic theory.

Short-term growth based on increased capacity utilisation (G1) that does not alter the combination of employed inputs is linked to superior efficiency and favourable market conditions of the respective industry or the firm's advantage within the industry. Short-term types of growth based on either labour (G2) or capital (G3) are triggered by allocative inefficiency or advantageous conditions within the industry or relative to other industries. Favourable market conditions, particularly for the firm relative to its competitors, are believed to fuel long-term growth of firms (G4). The hypothesis regarding unsuccessful growth of firms from the G5 group is that it emerges due to pressures to increase cost efficiency to support investment activities and unfavourable conditions of the industry or the less advantageous position of the firm within the industry due to wrongly estimated market developments. The assumed triggers of downsizing for firms from the G6 group include low cost efficiency and poor market conditions, particularly for the respective industry relative to other industries. Non-

growing firms are technically inefficient firms with lagging performance compared to competitors within their respective industry and operating in less attractive industries. Such firms fail to overcome these limitations even with their efforts for improved allocative efficiency.

Empirical results show that firm growth in Slovenia exhibits theoretically expected features outlined at the end of Section 2.2 of this paper. Results also indicate that in the efforts to explore the fundamental question of how firms are growing, microeconomic theory might be a good theoretical foundation for the identification of the key primary triggers of firm growth.

Results also have relevant managerial implications. They stress the importance of the firm's competitive position within its respective industry that can be influenced by management and their success in developing active growth strategies. By actively creating the firm's competitive advantages, its management can ensure profitable firm growth. A weaker competitive position within the industry is a serious obstacle for growth or even a threat for unsuccessful firm growth. Our analysis also shows how important it is for managers to continuously analyse and monitor market conditions both within their respective industry and relative to other sectors of the economy. Any disequilibrium state of the firm or any change that pushes the firm away from its equilibrium demands a prompt reaction from the management and an adequate type of growth. Short-term types of growth are an adequate response to changed input prices or altered market conditions. Long-term growth with adjustments in all factors of production is triggered primarily by market conditions with a stronger effect of the firm's position relative to its competitors and a weaker role of the industry's position relative to other sectors of the economy. Our results also confirm that profitability cannot increase if market conditions deteriorate. In such circumstances, profitability can be maintained only through downsizing. This conclusion highlights that management must approach also downsizing as a type of firm growth.

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