



## THE INFLUENCE OF MARKET SITUATION ON DIVERSIFICATION STRATEGY OF COMPANIES' ACTIVITY

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**Abstract.** Companies' diversification is analyzed in various aspects. It is generally recognized, that, as adaptation to market strategy, which can be both very successful and very unsuccessful, this phenomenon is controversial. There is a practical and scientific problem - to highlight and analyze conditions for successful diversification activity. One of the condition is market situation. The economic crisis has shown that companies which did not assess eventual key changes in market, went to bankrupt, i.e. the ones, which did not provide an alternative for products which are sensitive to shrinking market. It follows, that it is reasonable to examine diversifications dependence on market situation, i.e. to examine influence of developing, shrinking and stable markets to it.

**Keywords:** diversification, strategy, market situation, company activity, construction sector.

**JEL classification:** L1.

### 1. Introduction

In recent years the company's operating activities became more complicated. Two essential circumstances were the cause of this phenomenon. Firstly, the world globalization process which resulted in fierce competition, secondly, rapid changes in market situations were influenced by protracted financial and economic crisis in the world. It happened in the Lithuanian enterprises as well. Some of the companies went bankrupt. Therefore, to function and be active today, the companies are forced to look for new ways how to adapt to external changes. One of these strategies is activity diversification, which implies the manufacturing and introduction of new products into the markets, which are different from the existing ones. This phenomenon is very complex, therefore, many contradictory evaluations occur. On the other hand, because of the economic crisis, namely, such companies went bankrupt, which lacked independent inflows (revenues), i.e. manufacturing program was not diversified. Therefore, if markets are shrinking, the importance of diversification increases. It follows, that it is reasonable to examine diversifications, as companies' development strategy dependence on market situation. The analysis of scientific literature indicates that too little atten-

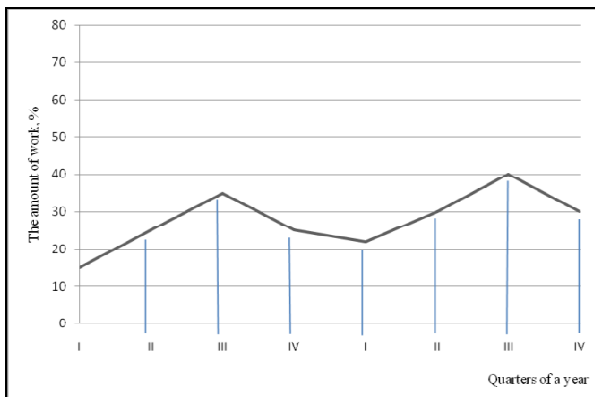
tion is paid to this aspect, ignoring the importance of this phenomenon. Most attention is paid to diversification quantitative evaluation, display (perform) forms and some other similar issues. The aim of the article is to define how the situation in the market influences companies' activities diversification efficiency. To describe this process, the quantitative diversification level is ascertained, correlation – regression analysis and other methods are applied. The application of the above mentioned methods gives possibility to ascertain the connection between companies' commercial activities and diversification degree in developing, shrinking and stable markets.

### 2. Theoretical assumptions which are based on relation between market situation and companies' activities diversification efficiency

The strategy of a company's manufacturing programme diversification differs from other developing strategies, which certifies that a company functions in existing product – market area (Ansoff 1957, 1965, 1979, 1984; Ansoff, McDonnell 1990; Ginevičius 1998; Ginevičius, Sūdžius 2007). Therefore, the situation is based on existing technical, financial, marketing and other resources and capabilities. Meanwhile, the diversification im-

plies new technologies, new qualifications, new knowledge, the other ways of management, new means of marketing, etc (Lang, Stulz 1994). Despite its complexity and riskiness, it provides better possibilities to adapt to the external changes.

External situation, i.e. changes, can be favourable, neutral or unfavourable to develop diversification strategy (Lemelin 1982; Chang 1996; Lee *et al.* 2012; Giachetti 2013; Lejarraga, Walkenhorst 2013). Therefore, the question arises: how far these changes are influential speaking from the company’s point of view. There are two main factors: firstly, the existence of changes, secondly, the nature of changes. If the company faces constant fluctuations in demand, we can speak about unstable external situation. These fluctuations can be both short and long term. An example of short term cyclic fluctuations in demand can be quarterly performed jobs fluctuations in construction business which recur from year to year (Figure 1).



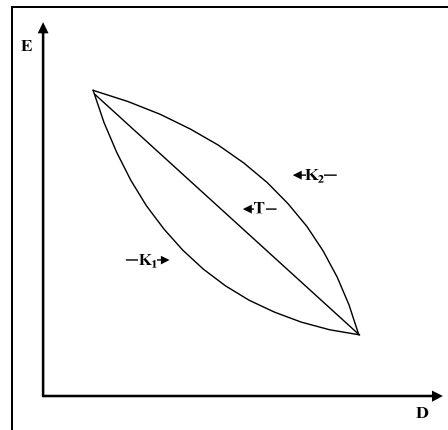
**Fig. 1.** The fluctuations of the amount of work done in construction sector in quarters of a year (2005-2011 year average) (source: Statistics Lithuania)

Difference lies in the long – term demand changes: they are closely linked with the situations in the market – developing, shrinking and stable.

In order to formulate theoretical assumptions which are based on market situation impact on diversification efficiency, it is important to investigate company’s activities conditions in specific above mentioned markets.

**Developing markets.** Developing markets influence the increase of demand for existing company’s products. In order to answer the question whether it is worthwhile in this situation to increase the scale of diversification, it is important to remember its essence. It is essential for every company to have its own “core“, which indicates the total ability of a company precisely and effectively to combine market knowledge with technologies the aim of which is to gain bigger profit, to

increase the scope of work, and adapt to the external conditions (Wrigley 1970; Ginevičius, Petraškevičius 2008). In the process of diversifying the manufacturing program such products are involved in production and realization where certain skills are needed which are beyond “core” limits. In other words, new technologies, new equipment and different specialists and other ways of “entering” into new, sometimes unknown markets are needed, etc. But on other hand, is it good to proceed this way if the demand for existing products is big, which brings good profit and it is possible to increase the amount of goods produced without any risk (Lichtenthaler 2005). Therefore, it is logical that in developing market manufacturing program diversification role should not be too big, a company should concentrate on existing products. The theoretical model describing the impact of company’s activities diversification efficiency in developing market should be as follows (Figure 2).



**Fig. 2.** The theoretical model of developing market impact on company’s activities diversification efficiency (D – the level of company’s activities diversification; E – integral index of company’s commercial activities efficiency; T – linear dependence;  $K_1$ ,  $K_2$  – curvilinear dependence) (source: compiled by authors)

**Shrinking market.** In this case, the company finds itself in different, opposite situation. The essential feature of this type of market is, that the demand for existing products decreases very much. The company can survive if it offers new products, which can be sold in other markets, where the crisis was not so vivid. Consequently, if the market shrinks, company’s manufacturing program diversification importance is increasing. However, there is a limit to diversification, because over-extended use of shared resources may result in congestion and loss of control (Ginevičius 2009; Purkayastha *et al.* 2012).

The theoretical model of the shrinking market impact on company’s activities diversification efficiency is presented in (Figure 3).

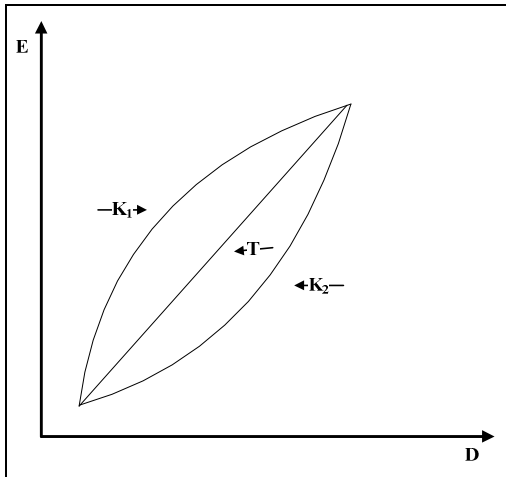


Fig. 3. The theoretical model of the shrinking market impact on company's activities diversification efficiency (source: compiled by authors)

**Stable market.** The situation covers two, the above mentioned, market characteristics. On the one hand, when the demand is comparatively stable too big "estrangement" from the manufacturing of existing goods, i.e. "entrance" into so cold distant markets, is closely connected with additional material and managerial costs (mastering new technologies, overcoming "barriers" while entering new markets, etc.).

Therefore, it indicates a big risk not to achieve desirable economic result (Ginevičius *et al.* 2013). It might appear, that the increase of inflows (revenues) can be achieved, without any big risk, by developing existing or similar products, i.e. staying close to existing manufacturing of products.

On the other hand, narrowing the manufacturing program too much can bring a negative result because in this case, the company becomes to sensitive to demand fluctuations, and the amount of resources, which brings profit to the company, goes down. It follows that the company's financial stability is reduced.

Some authors (Purkayastha *et al.* 2012; Lampel, Giachetti 2013) argue that once economies reached this ideal state, the need for diversified firms would disappear, it could be said, that under the conditions of stable market, it is important to diversify the company's manufacturing program to a certain degree, because, as it was indicated too big diversification and narrowing the production can bring a negative result. The theoretical model of stable market impact on company's activity diversification efficiency is as follows (Fig. 4).

Having combined all three above described theoretical models (Figs 2–4) we get company's activities diversification efficiency integrated theoretical model which is influenced by the situation in the market (Ginevičius 2010) (Fig. 5).

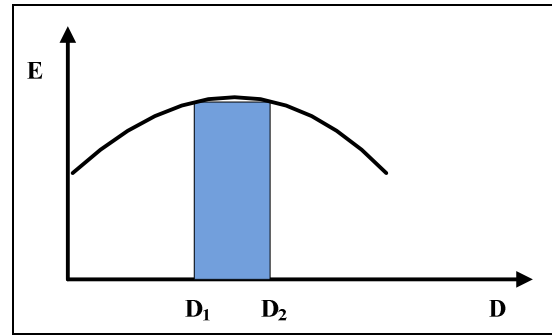


Fig. 4. The theoretical model of stable market impact on company's activity diversification efficiency is as follows (D<sub>1</sub>-D<sub>2</sub> – the zone of appropriate diversification) (source: compiled by authors)

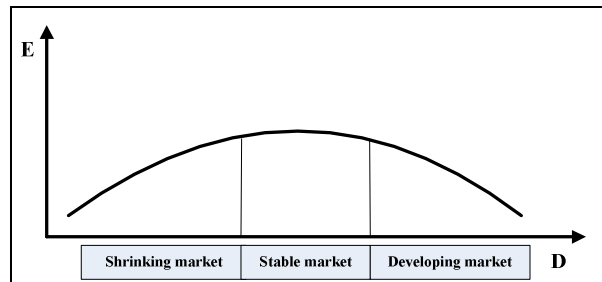


Fig. 5. The integrated theoretical model of market situation impact on company's activity diversification efficiency (source: compiled by authors)

### 3. The empirical verification of market situation impact on company's activity diversification efficiency

The empirical investigations of the Lithuanian companies activities diversification process started in 1995 in Lithuania (Ginevičius 1995). Later, in 2008 (Ginevičius, Andruškevičius 2008) and 2009 (Ginevičius 2009) very similar investigation were produced. The goal of all investigations was to establish construction companies' commercial activity efficiency dependence on the level of diversification  $D_B$  and  $D_b$  (Ginevičius 2009):

$$D_b = 1 - \sum_{i=1}^n q_i^2, \quad (1)$$

$$D_b = 1 - \frac{1}{\sum_{i=1}^n \frac{1 - q_{max}}{1 - q_i}}, \quad (2)$$

where:  $q_i$  – ratio of „i“ product (inflows/revenue, turnover) ( $i = 1, \bar{n}$ );  $q_{max}$  – the biggest number of product (inflows/revenue, turnover) ratio;  $n$  – the amount of products ( $i = 1, \bar{n}$ )

The efficiency of company's commercial activity was calculated on the basis of multi – criteria evaluation method. The method SAW was applied more often (Ginevičius, Podvezko 2012; Ginevičius 2012; Stasytyte 2012; Lee, Lee 2013; Aghdaie *et al.* 2013):

$$E_j = \sum_{i=1}^n \omega_i \hat{r}_{ij}, \quad (3)$$

where:  $E_j$  – „j“ company’s commercial activity efficiency complex evaluation index;  $\omega_i$  – index of importance in parts of „i“ unit ( $\sum_{i=1}^n \omega_i = 1,0$ );  $\hat{r}_{ij}$  – „j“ company’s index normalized value

The indexes indicating company’s commercial activity efficiency were: profitability, cost – effectiveness, the coefficients of financial activity (current, general, critical liquidity, etc.) and other indexes.

In order to define how the market impacts upon company’s activities diversification efficiency the period under investigation should be connected with either developing, shrinking or stable markets.

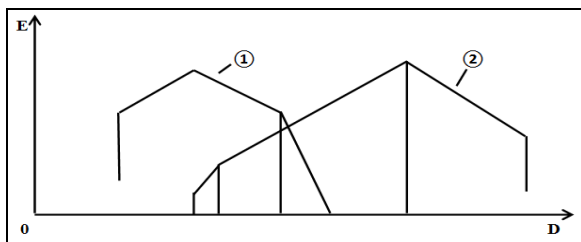
On the basis of statistical reports and the situation in construction sector which is indicated in (Figure 1) starting with 2005 and finishing with 2011, the information is as follows in table 1.

**Table 1.** 2005- 2011 year period describing the situation of construction sector in the market (source: Statistics Lithuania)

Years	The market type
2005–2006	Stable
2007–2008	Developing
2009–2010	Shrinking
2011– to the present	Developing

It is possible to check, if the market type is known, the empiric dependence compliance with the theoretical models (Figures 4 and 5).

The results of empiric investigation which was done in 1995 and 2011 are depicted in Figure 6.



**Fig. 6.** Companies’ commercial activity efficiency dependence of the degree of diversification (1 - 1995 investigation, 2 - 2011 investigation)

Some conclusions can be made from the given information presented in Figure 6. Firstly, the actual company’s commercial activity efficiency dependence complies with the company’s activity diversification efficiency theoretical model under the conditions of stable market. As it is known

from Statistics Lithuania, in the period of 1995–2011 the stable market prevailed.

Secondly, the biggest commercial activity efficiency which correspond the degree of diversification in the second investigation is indicated by the movement to the right. It means, that under the conditions of stable market economy the companies manage properly to control bigger amounts of goods produced. It indicates the growth of managerial maturity in an organization.

The investigation made in 2004–2006 was based on this data (Ginevičius *et al.* 2008) (Table 2).

**Table 2.** The investigation of diversification degree ( $D_b$ ) and cost effectiveness ( $R$ ) in construction companies in the years of 2004- 2006

Companies	2004		2005		2006	
	Db	R (%)	Db	R (%)	Db	R (%)
1.	0.286	3.90	0.288	4.50	0.578	5.40
2.	0.670	2.90	0.677	5.50	0.660	5.70
3.	0	0.20	0	5.00	0	5.50
4.	0	0.13	0	4.12	0	3.40
5.	0.003	2.10	0.026	4.10	0.028	4.70
6.	0.150	1.11	0.200	4.56	0.280	5.02
7.	0.175	3.00	0.146	2.50	0.141	2.00
8.	0.308	1.90	0.308	3.20	0.284	5.80
9.	0.517	3.51	0.508	3.55	0.489	4.01
10.	0.121	0.14	0.129	1.09	0.156	1.08
11.	0.405	0.37	0.451	0.65	0.500	1.26
12.	0.116	0.51	0.172	0.54	0.183	6.76
13.	0.200	3.17	0.251	4.86	0.233	5.90
14.	0.481	13.00	0.531	10.00	0.474	11.00

Companies’ commercial activity dependence on the degree of diversification was established on the information presented in Table 2 and on parabola correlation – regression model:

$$E = a_0 + a_1 D_b + a_2 D_b^2, \quad (4)$$

where:  $a_{0,1,2}$  – the coefficients of correlation equation.

The obtained results are revealed by the correlation regression equations (Table 3) and in the graphic depiction of these equations (Figures 7 - 9).

**Table 3.** Construction companies’ commercial activity cost – effectiveness dependence on the level of diversification

Years	Equation	The strength of link
2004	$R = 0,14 + 10,45DD_b + 9,888D_b^2$	0.22
2005	$R = 4,261 + 12,412D_b + 20,355D_b^2$	0.29
2006	$R = 4,411 + 1,942D_b + 3,884D_b^2$	0.26

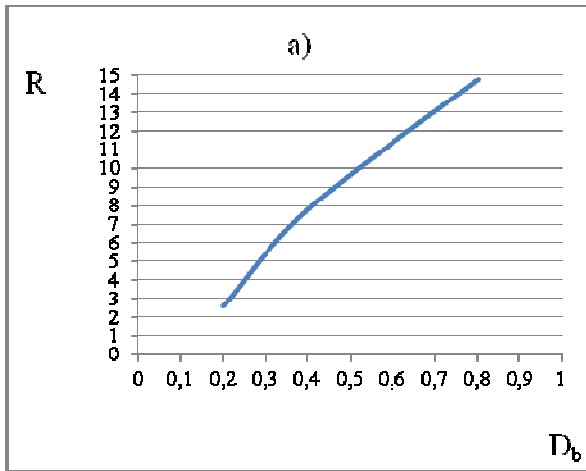


Fig. 7. Company's commercial activity dependence on the level of diversification in 2004 (source: compiled by authors)

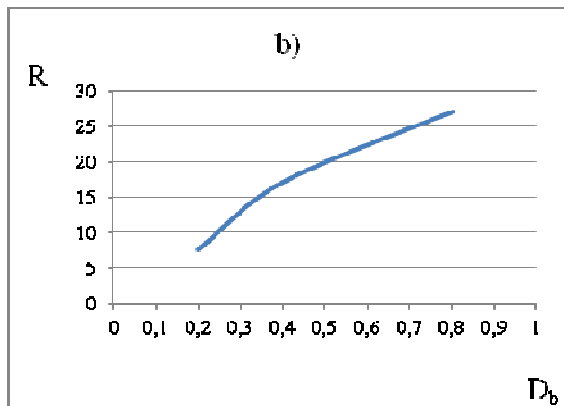


Fig. 8. Company's commercial activity dependence on the level of diversification in 2005 (source: compiled by authors)

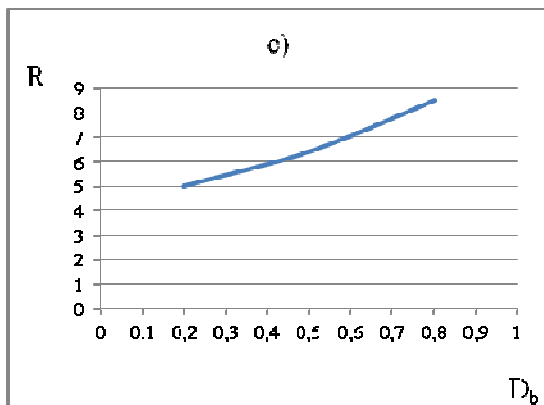


Fig. 9. Company's commercial activity dependence on the level of diversification in 2006 (source: compiled by authors)

As it is seen from Figures 7 – 9, the nature of empirical dependence does not correspond the influence of developing markets on the nature of theoretical model of company's activities diversification efficiency (Figure 2). On the other hand, the real situation is defined not by the nature of dependence, but the strength of link.

It is rather weak, because its significance fluctuates within the limits of 0.22 and 0.29 (Table 3). It indicates, that the impact of diversification upon the commercial activity results is weak and it complies with theoretical assumptions.

Very similar investigation was done in the years of 2008–2009 when the market was shrinking. On the basis of theoretical assumptions, in this situation, the importance of diversification to company's commercial activity results should be increasing. This is confirmed by the correlation - regression equations and by the coefficients (strength) of link (Table 4).

Table 4. The dependence of turnover (T) in construction companies on the level of diversification (D\_G) 2004 (source: compiled by authors)

Years	Equation	The strength of link
2008	$A = 0,134 + 0,0254D_G$	0.58
2009	$A = 0,0088 + 0,0918D_G$	0.66

The equations presented in Table 4 are depicted graphically (Figures 10 and 11).

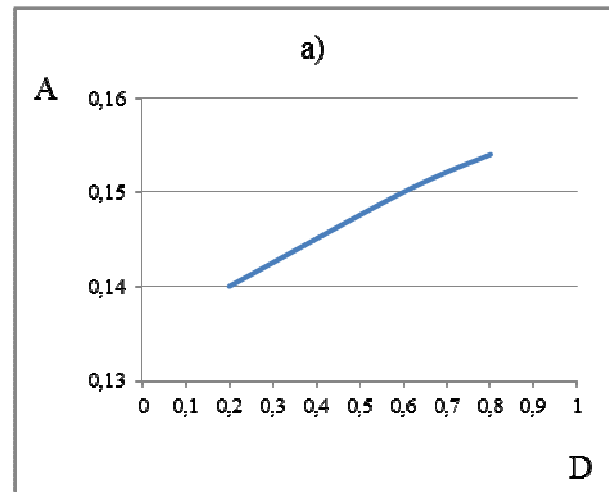


Fig. 10. Construction companies turnover dependence on the level of diversification in year 2008 (source: compiled by authors)

As it is indicated in Figures 10 and 11 the nature of empirical dependence corresponds to the influence of shrinking market on the companies activity diversification efficiency theoretical model (Fig. 3). This correspondence is confirmed by the high level of strength of link coefficients (consequently 0.53 and 0.66).

The latest investigation of markets' influence of company's activity diversification efficiency was done in 2010, i.e. when the construction sector recovered. The equation is as follows:



$$A = 0,1952 + 0,025D_G \quad (5)$$

The Eqn. (5) is graphically depicted in Fig. 12.

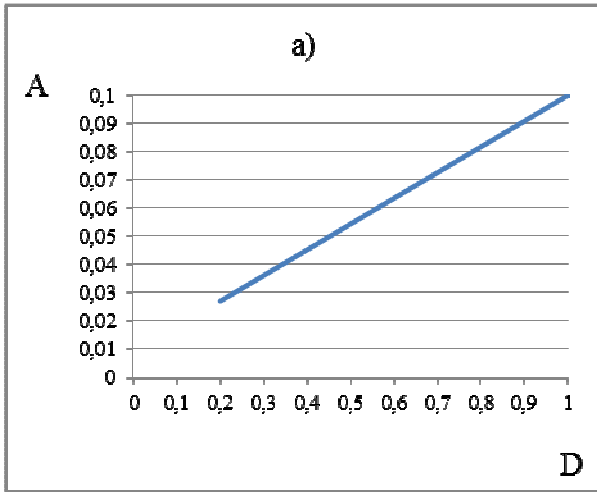


Fig. 11. Construction companies turnover dependence on the level of diversification in year 2009 (source: compiled by authors)

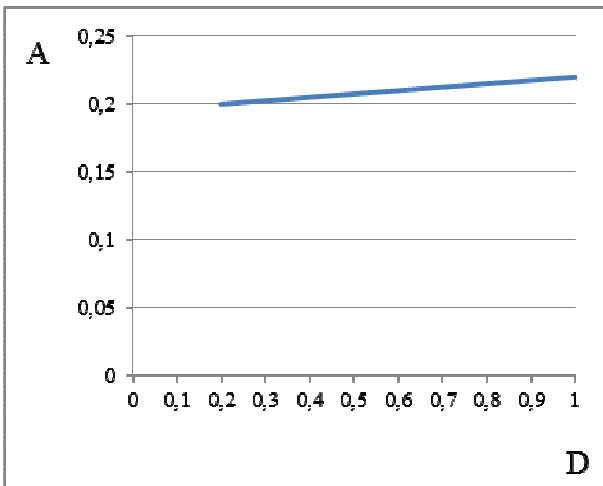


Fig. 12. The dependence of construction companies turnover on the level of diversification in 2010 (source: Statistics Lithuania)

Fig. 12 indicates that the nature of empirical dependence does not comply with the developing markets influence on the nature of company's activities diversification efficiency theoretical model. Therefore, having compared it with the past period it can be said that the strength of link decreased very much. In fact, there is no contradiction because for strategic orientation entering new markets more time is required. Decreased strength of link speaks about the fact that companies evaluated the present situation and certain steps were made.

#### 4. Conclusions

In order to adapt to more complex and dynamic external environment, companies have to search new strategic means of development. One of the ways is – diversification of manufacturing program. Numerous existing studies have explored the link between diversification and company performance (Fukui, Ushijima 2007; Jiraporn *et al.* 2006; Johnson *et al.* 2011; Chen, Yu 2012; Park, Jang 2012; Purkayastha *et al.* 2012). The importance became clear under the conditions of economic crisis. Life showed that in this situation such companies survived which had some independent resources of inflows (revenues).

There have been relatively fewer studies that compare diversification and company performance in unstable periods such as an economy-wide shock (Lim *et al.* 2009).

Because of its complexity and exclusivity (a company must push competitive products into the markets) the diversification strategy is very risky, therefore, in scientific literature it is investigated from different aspects. On the other hand, too little attention is paid to diversification because its importance for company's development strategic efficiency is dependent on the situation in the market. Some researchers agree (Purkayastha *et al.* 2012) that the functional form of diversification and company performance relationship in different market situation may not be identical.

The situation in the market can be described as follows: developing, shrinking and stable markets. Theoretical analysis of market situation influencing company's activities diversification efficiency indicates that in the developing market the importance of diversification decreases, in shrinking market – increases, and in stable markets – is rationale within certain limits.

The results of produced empiric investigations (period 1995–2011) on construction companies activity diversification indicate, that, firstly, manufacturing program diversification did not become the effective construction development strategy among companies in Lithuania, secondly, practically, companies' commercial activities efficiency dependence does not always comply with a situation in the market and does not influence theoretical model diversification efficiency. It follows, that companies do not consider the tendencies of changes in the market and do not timely foresee adaptation to different strategic means of forthcoming situation. On the other hand, the strength of link between companies competitive activity results diversification in different situations in the markets indicate, though sometimes

the companies are belated they take measures to define their manufacturing program.

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