внутрішні (показники самої діяльності страховиків). Тож при визначенні основних напрямів покращення сучасних тенденцій треба брати до уваги всі чинники в сукупності.

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BUSINESS DEVELOPMENT IN RAPIDLY GROWING MARKET: SYSTEM DYNAMICS METHODOLOGY

In the modern world, markets are growing very rapidly. This process creates a significant problem for most of the companies because they need to adjust their production to sales in order to improve their performance. "The increase in size or sales observed within a given consumer group over a specified time frame. When the management of a business is reviewing the success of a product, it needs to deduct the overall market growth rate from the observed product sales growth."

Market size has the following definition: "The number of individuals in a certain market who are potential buyers and/or sellers of a product or service. Companies are interested in knowing the market size before launching a new product or service in an area."[1].

In another case, they will just lose the money if they do nothing. The purpose of every business is maximizing profits and minimizing the costs. Also, there are a lot of limitations that are making the goal of adjusting production even more difficult. For maximizing our sales we need to adjust production to the level of needed sales. That's why the problem of the model is a gap between desired production and production and this problem is caused by the rapidly growing market.
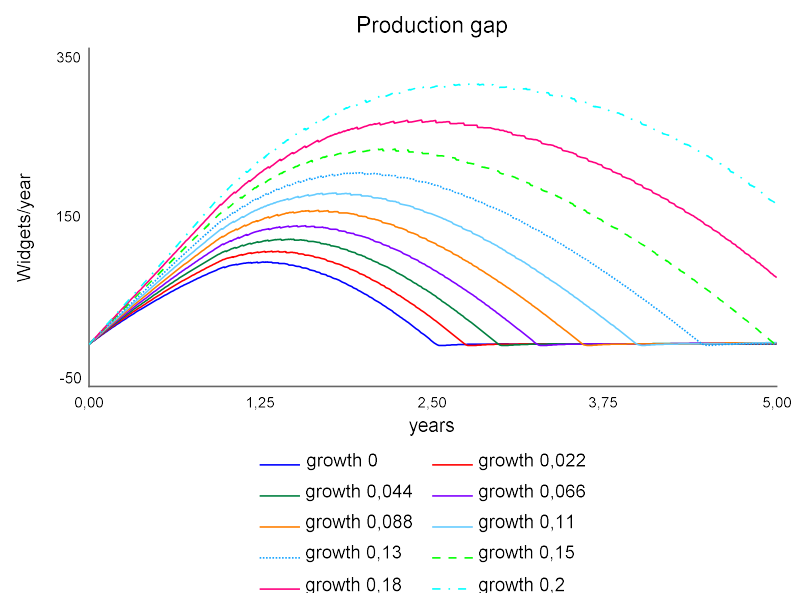
Graph 1. **Production gap development in sesitivity analisis**

For increasing production company has to raise production capacity or capacity but in the case when capacity is already in a maximum, the company is rising production capacity in a way of increasing number of workers or productivity. The number of workers could be raised only due to the budget for the workforce but there will be a point when the present level of capital could not afford

more workers. We are assuming that more capital increase productivity but also allows hiring more workers in the future. For increasing of capital, the company has to buy new assets and take a loan what increases the debt but increasing number of assets raises our productivity and level of workers that could work.

The rapidly growing market, in my opinion, is caused by the reinforcing loop. A bigger market we have than the bigger is a growth of the market and at the same time, the bigger growth leads to the bigger market. This reinforcement behavior is a cause of our problem - adjusting production due to our sales because all companies are always trying to maximize their profits and don't lose a share of a market. Market size has following definition "The number of individuals in a certain market who are potential buyers and/or sellers of a product or service. Companies are interested in knowing the market size before launching a new product or service in an area." [1].

I built a model in Stella Architect which is used for System Dynamics modeling. In this paper I'm disclosing a small part of the model and analysis. In my opinion sensitivity analysis could also help especially in analyzing of market growth. With its help, we could predict what companies should expect in case of different market growth because usually, it s volatile a lot. In case of prediction, they could change their decision-making and be ready for different scenarios.

I made sensitivity analysis for fraction growth to see how it influences references mode of the model and what company should expect from this volatilities. Also was made 10 runs from 0 growth to 20 percent of growth. In general most of the markets have such boundaries for volatilities

As we see the bigger growth we have, the bigger gap we should expect (Graph 2). It means that companies should be prepared for fluctuations.

As I'am focusing on the workforce it's very important to analyze what number of workforce we need due to the different number of fraction growth. In our case the more growth we have the more workforces we need and it takes more time to close the gap in the workforce. All of these hypotheses reflect realities which are evidences of the right structure.
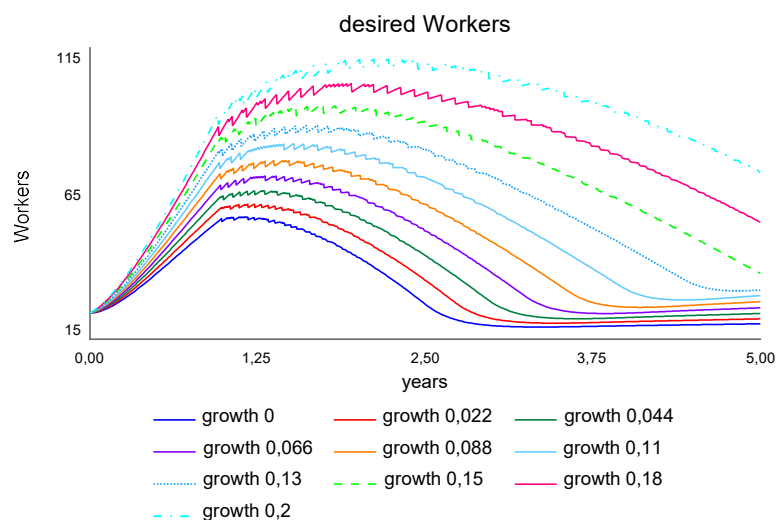
Graph 2. **Desired workers development in sensitivity analisis**

Analysis that is shown isn't enough for disclosure the whole model which is more complex but gives an understanding what company should expect. Also it gives us understanding of a problem and a clue that something should be change otherwise company won't be effective.

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