

# OKR SYSTEM AS THE REFERENCE FOR PERSONAL AND ORGANIZATIONAL OBJECTIVES

Milenko Radonić<sup>1</sup>

<sup>1</sup>Faculty of Organizational Sciences, e-mail: [radonic.milenko@gmail.com](mailto:radonic.milenko@gmail.com)

*Abstract. In order to measure the correlations between the company's and the personal objectives of the employees, there is a precondition in the terms of implementing the adequate management system. This paper emphasizes the importance of the OKR system and its use in modern business organizations. Nowadays, using management tools through the MBO methodology is not sufficient to achieve competitive results. Encouraging employees to achieve highly ambitious goals, as well as integrating individual objectives of employees and company's objectives, is something that is often omitted. At the end of the 20th century, tech companies started using OKR as a new strategic management tools. Many of them, such as Google, LinkedIn, Intel, owe their growth and success to OKR system. This paper will introduce a practical example of the OKRs shema in an online booking reservations company and the specificities of its use in a different systems which is one of the main benefit of the OKRs. By presenting the success scores of individuals and overall success score, this paper will show the importance of bottom-up management concept through the correlation between personal development, success score of each individual and company's success score.*

*Keywords: Objectives and Key Results, Success Score, MBO, Organizational Success*

PACS numbers: 89.65.Gh, 89.75.Fb

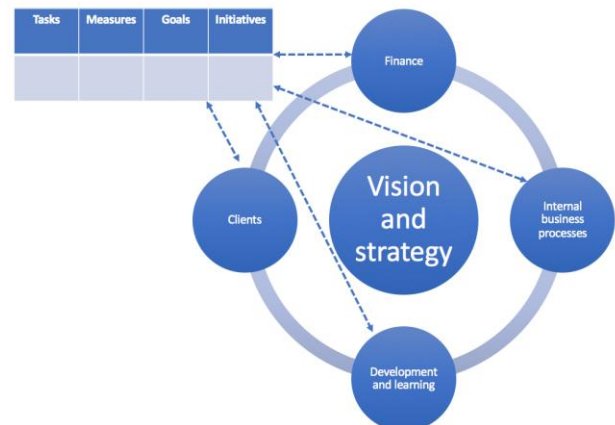
## 1. INTRODUCTION TO MODERN MANAGEMENT METHODOLOGIES

Modern management systems and philosophies are now applied in many companies as an upgrade to the basics of strategic management. The need for developing strategic tools came in the 50s and 60s, with Chandler (1962), Selznick (1957), Ansoff (1965) and Drucker (1954) as the founders of strategic management and tools in strategic management.

One of the basic strategic management methodologies is Management by Objectives. Peter Drucker has embraced a variety of management techniques made to improve the company's performance. [9] He has introduced Management by Objectives (MBOs) in 1954, a process during which management and employees define their key objectives and what they should do to achieve them. [21] Many companies took over MBO and modified it in accordance with their needs and their strategic business units. By further development of management philosophy, George Doran gave a framework in 1981 for the definition of goals by the principle of SMART philosophy, where the goals should be specific, measurable, achievable, realistic and time-oriented.

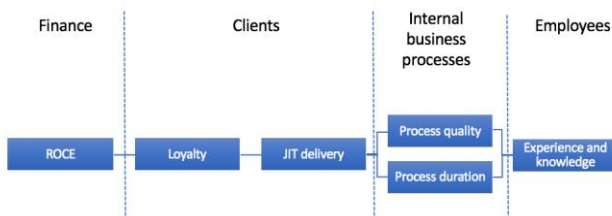
Subsequently, many strategic tools based on goal-based management have been developed. One of these tools is the Balanced Scorecard by Kaplan and Norton (1992).

Martinsons et al. (1999) recognize BSC by its multidimensional approach to performance management. [15] Kaplan and Norton define BSC as the performance measurement tool which has several points of focus. One of them is finance, however, by the BSC, company should be oriented also on customer centricity, improving business processes and on development and learning of the organization. So, it provides a holistic performance outlook. [11]



**Fig 1:** Balanced Scorecard as a Tool for Measuring the Goals [12]

Many companies treat the financial aspect of business as the most important. Companies which focus only on the financial perspective of their business are more likely to lose control of their overall success. Each perspective of the BSC (financial aspect, aspect of improving processes, clients and development and learning aspect) is related to the previous one and could be seen as a chain. In order to track the success from each of those perspective, the company should have well defined KPIs. Some of the key performance indicators recommended by Norton and Kaplan are ROCE (Return on Capital Employed) or refunds on invested own funds, level of the customer's loyalty, just-in-time delivery of services/products, duration of processes, knowledge expansion, etc. In Figure 2, there is a brief example how the chain of BSC should look like.



**Fig 2:** The relation of KPIs in different aspects of business using the Balanced Scorecard [12]

The essence of all perspectives in the concept of the BSC is to provide answers to several questions:

- How do the stakeholders perceive the company through the company's vision and strategy;
- Which business processes need to be modified and improved in order to increase stakeholder's satisfaction;
- In which parts employees need to improve in order to accomplish their goals and to achieve the vision of the company. [12]

The majority of Fortune 500 companies have been using BSC as a multi-dimensional and a holistic tool. It has many advantages. The benefits of the BSC include overcoming inadequacies of the traditional financial orientation of most businesses. BSC helps companies transform strategies and vision into measurable steps as part of performance management and it helps businesses realize the insight of their values and how they are creating them. [1] However, BSC has weaknesses as well. Awadallah and Allam (2015) point out on the implementation problems and lack of the knowledge to define key success factors for identifying KPIs. Đorđević and Stojanović (2013) highlight the lack of transparency through the organization as one of the BSC weaknesses. [6]

All in all, during the history of modern management, goal-setting has been used for two main purposes (Mello, 2016, p 10):

- To increase the motivation of employees (efficiency) and
- To assess the performance of employees.

By setting a clear goals, organizations tend to increase focus, effort and persistence towards successfully achieved goals. Individuals pay more attention to a task associated with goals than the ones that are not. On the other hand, people feel more energized and eager to put an extra effort if they see the final goal and are more persistent in achieving that goal. [6]

In 1999, John Doerr has used a new methodology based on MBO and BSC, called OKR which stands for Objective and Key Results. Doerr introduced OKRs as a system for managing key objectives. Doerr was firstly exposed to OKRs at Intel in the 1970s. At that time, Intel was making a transition from producing memory chips to producing microprocessors and they needed an extra focus on the set of priorities in order to succeed. By creating OKRs the company achieved their main objective, which was huge at that time. However, the origins of OKRs in the terms of exploring them were related to Google and implementation of the OKRs by Doerr in Google in 1999. [2]

John Doerr has defined OKR system as an essential management scheme based on critical thinking, collaborative

efforts and structured objectives, but he also points out on a management methodology that helps businesses focus on a joint effort in achieving the company's goals. Many tech giants like Google, Oracle, Intel, LinkedIn, and other successful tech companies, use OKRs in their day-to-day business. The concept of OKRs highlights the relation between the goals set by the employees themselves as their personal OKRs and the company's OKRs. [2]

## 2. THE MAIN DIFFERENCES BETWEEN MBO AND OKR METHODOLOGY

Many organizations identify OKRs with MBO and BSC. However, there are several main differences between OKR and MBO as a management methodology:

- OKRs are set and evaluated more frequently (monthly, quarterly or semi-annually);
- OKRs are more transparent – they are completely public to each member on every hierarchy level;
- Bottom-up concept of setting goals – Unlike MBO, where goals tend to be defined in top-down concept, OKRs involve every individual goal as part of the company's main objectives;
- OKRs are always defined as ambitious with 50% chance of achieving them. However, success is acknowledged after 70% accomplished. That does not mean that OKRs treat 70% as a 100% achieved goals in the MBO methodology. The aim is to set the higher goals.
- OKRs involve not directly related compensations. If the employee achieve highly ambitious goals, the company should reward employee as a % of his/her monthly/quarterly salary. The type of reward is a flexible factor in the OKRs. However, this can affect employees by setting the lower goals, therefore the % of goal's completion isn't that important as the actual results. [6]

When it comes to setting goals, this process is different in OKRs in comparison to MBO as well.

MBO starts with the top-down concept, by setting the main organizational objective. Next step is to communicate the objectives through the lower hierarchy levels and to monitor the employees efforts towards main objectives. After the evaluation, if the objectives are accomplished, employees should get rewarded. [3]



Fig 3: The MBO five-step process [5]

So, the main difference is in the concept of setting the goals. MBO promotes top-down management style, while OKRs promotes bottom-up style. On the other hand, MBO has multiple weaknesses:

- No single person is responsible for specific achievements, but the organization as a system, which leaves a small space for the rewards of individuals;
- Comparative ratings are complexed, so it is hard to compare them;
- MBO does not motivate employees to improve their personal knowledge and to develop themselves as an employees, not just a part of an organization;
- The whole MBO process is time consuming;
- MBO is more suitable for people hired on a higher hierarchy levels (management, sales people, etc), who work independantly and it is less applicable to routine jobs and positions that include such work. [9]

### 3. OKR SYSTEM AS THE REFERENCE TO MANAGEMENT BY OBJECTIVES

Over time, many companies have lost their focus points, although they adhered to the MBO concept and the balanced scorecard as a management tool. Through the technological revolution, achieving higher level of transparency has become easier than ever. By creating such conditions, many companies search for a new, modified model of strategic management by using goals and key results. Objective and Key Result (OKR) system is one of the most popular in tech industry which affected the overall business results.

Management by objective as a concept was mostly used and dominant during the 80s and 90s. In 1981, George Doran set the foundations for managing goals in a more effective and efficient way by establishing the concept of SMART objectives. [14] By defining key Performance Indicators (KPIs) as measuring units in order to define company performance, companies have made a clear path to track their performance, evaluate their business and make forecasts . In 1999, John Doerr made a unique OKR system for setting, tracking and evaluating individual objectives of employees and as a final result – company’s main objectives. Since this system has been implemented by Google from the very

beginning, it is presumed that it contributed to the overall success of the company.

By using the OKR system, Google has focussed on efficiency and effectiveness through the “70-20-10” rule as an extention to Objective and Key Results. This rule points out that 70% of activities should be related to the main objectives and important projects, 20% should be related to the supporting activities and second priority objectives and 10% on the remaining activities as the *health meatrics*. Health meatrics are the tasks which need to be fulfilled so that a company could work operatively without any bareers. OKR also have a function of increasing transparency within organization and making a better prioritization. Key objectives should be set quarterly and evaluated quarterly. With the growth of organization, OKRs could change the period from quarterly setting to six month period of setting and evaluating objectives. *Google* has choosed a half-annual period where employees have the chance to progress twice a year if they achieve the agreed objectives. [19] The complexity of a company and its structure could affect the slower decision-making. That’s why most of the companies seek for a more flexible management concepts which could increase the company’s growth and development of its employees. [10]

In order to better understand OKRs principles, according to the founder of the OKR system – John Doerr, it is recommended to follow the main directions when setting OKRs, such as:

- Objectives should be defined as inspirative and motivational and they should clarify where will the accomplishment of those objectives lead the organization;
- Goals should be ambitious as high as 0.5 possibility to get accomplished (thereby encouraging innovation to achieve goals);
- Through the OKRs, organizations should stimulate highly productive and effective employees;
- It is necessary to have 4-6 objectives (no more and no less) due to the focus factor, and 3-5 key results as a monitoring tool for objectives;
- Key results must be measurable (if not, than converted to the measurable unit), time-oriented, and specific;
- For each of the objectives and key results, it is necessary to identify the responsible sector or person;
- The OKRs should be set quarterly or semi-annual (depending on the size of the company);
- With the setting up of such a system, it is recommended to set a bonus for achieveing high results, and to motivate employees to achieve higher results each month;
- The goals should be set by a bottom-up concept;
- OKRs should be transparent to every hierarhy level in the company. [2]

Unlike the Balanced Scoreboard, the OKR system is also considered as a tool that highlights the importance of personal objectives and use them to form the company’s main goals. If the OKR is compared with the Balanced Scoreboard, the main difference is that it stimulates employees on each hierarchy level to achieve more ambitious goals (with 50% chance of achievement at the time of setting). Unlike OKRs, BSC is more oriented toward management levels. [17]

The OKR system can be applied within any organization, but it requires discipline, a lot of pre-training and education about OKR as a management system.

Table 1: The specifics of using OKRs in different organizations [2]

Type of the organization	Specifics of using the OKS
<b>Big organizations</b>	The biggest challenge during the implementation of OKRs is how to chose a proper communication channel which will be on a high level of transparency. It is suggested to set OKRs by departments. Evaluation should be done quarterly or semi-annually;
<b>SME</b>	SME should evaluate OKRs more often than bigger corporations – on a monthly or quarterly basis;
<b>Organizations in the domain of providing services</b>	In service or project oriented companies, objectives set by individuals should be vertically aligned;

Organizations should adopt OKR system according to their size and orgnizational structure. If there are several hierarchy levels, OKRs should be set according to that structure, by connecting objectives from lower hierarchy levels and setting them as the key results to the directly superior departments. This system could also be explained with an equation:

- $\alpha$  – Organization
- $\beta$  – Department
- $\gamma$  – Employees
- O – Objectives
- KR – Key Results

- $\alpha_O$  – Main objectives of the whole organization
- $\alpha_{KR}$  – Key results that explain objectives

$$\gamma O_1 = \beta KR_1$$

$$\gamma O_2 = \beta KR_2$$

.

.

.

$$\gamma O_i = \beta KR_i$$

-----

$$\beta O_1 = \alpha KR_1$$

$$\beta O_2 = \alpha KR_2$$

.

.

.

$$\beta O_i = \alpha KR_i$$

Every decision maker included in setting his objectives and key results, shouldn't have more than 6 objectives and 5 key results that are related to each of the objectives. The more complexed organization is, the more levels of OKRs should be organized.

However, this system was initially implemented for startup organizations. Since, many of the startup companies have flat-line management, they require less levels of OKRs, which could be seen in the Figure 1. It appoints that all employees and their personal OKRs are directly related to the company's OKRs. [22]

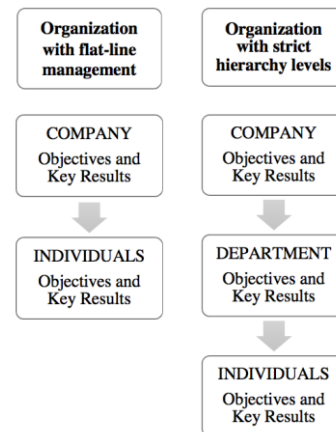


Fig 4: Structure of OKRs in flat-line management organizations and organizations with strict hierarchy

In order to understand even better how OKRs should be set, Doerr has made a universal example while he was implementing this management system into Google (1999). Larry Page, one of the cofounder had his key objective – winning a SuperBowl. After the OKR meeting, the bord of directors have accepted Larry's key objective and it automatically became the key result of his superior – John Doerr. On the other side, Jack – Head of PR had an objective – filling the stands to 88%, which also after the OKR meeting got voted and became the second key result of his superior John Doerr. These two key results should bring x amount of dollars for the owners. [13]



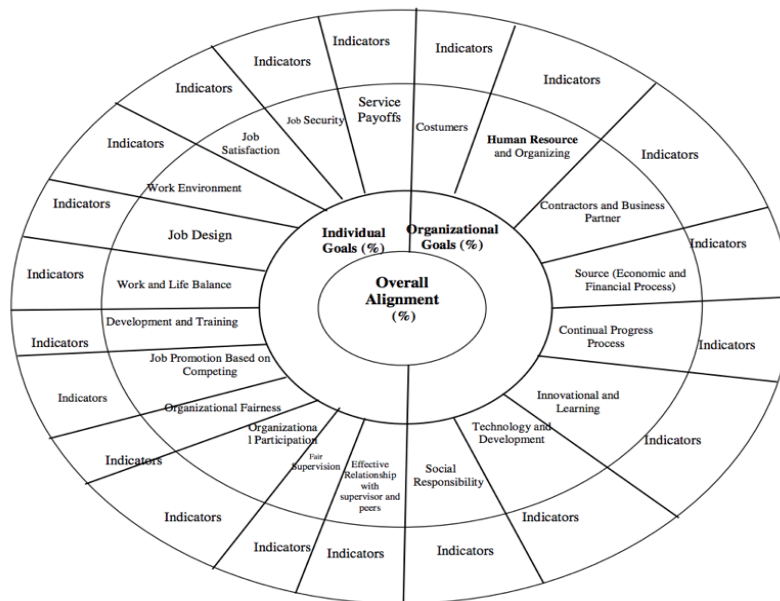
**Fig 5: John Doerr’s universal example on OKRs [2]**

The OKR meeting is organized to give a direction in which the entire company should enhance the personal goals, so that employees could have the freedom to define their own personal OKRs or OKRs of their department.

The general level of satisfaction is pretty important when it comes to implementing OKR system. It is required to provide a set of beneficial factors which will make the employees feel more satisfied. Some of them are working environment, organizational culture, salary, work and life balance, etc. However, in order to achieve the certain level of employee satisfaction, the

organization itself has to achieve certain goals in the terms of conditions for overall satisfaction.

According to the study of Mehdi Kheirandish (2014), there are a plenty of factors which could affect the overall organizational and individual satisfaction. Each employee tend to achieve personal goals in the field of establishing a good job environment, job security, etc. On the other side, there are organizational goals which are mostly defined by the management of the company. According to that, these goals could be divided into two main categories: the individual goals and the organizational goals.



**Fig 6: Alignment cycle model of employees/organizational satisfaction towards achieving goals [13]**



The OKR meeting is organized to give a direction in which the entire company should enhance the personal goals, so that employees could have the freedom to define their own personal OKRs or OKRs of their department.

#### 4. THE USE OF OKRs SYSTEM IN AN ONLINE BOOKING AGENCY

In the following case, there will be shown a real example of FishingBooker – the world largest online platform which helps customers to book fishing trips worldwide. Eventhough this company is pretty young (established in 2013), the exponential growth made it the world largest company in that domain. As every startup copmany, FishingBooker needed to experiment with several management models and in the late 2016, the company addopted OKR as an official management and evaluation system. [7]

FishingBooker was counting 20 employees at the beggining of its “OKR era”. One of the hardest parts was the education part, where employees should get educated about the mechanism of this system and how to set their own goals. By involving a bottom-up structure of setting goals, all the employees need to know how to set SMART goals. Organization itself needed to have a certain level of employees satisfaction as a precondition, in order for them to be fully motivated to set the proper OKRs.

The process of setting OKRs involve adherence to the OKR principles, from setting highly ambitious goals to transparency principles and reporting on a weekly basis. Unlike MBO, OKRs require a more frequent reporting about the achievements. Weekly reporting requires making two types of priorities – P1 and P2. P1 includes activities that are directly related to achieving the company’s OKRs, while P2 involves activities on personal development. Beside P1 and P2, there are “health meatrics” which include activities that are necessary to be done in order for the company to work properly. They are in most cases related to routine work. When reporting on a weekly basis it is important to report about the previous week achievements, but also to communicate the plan for the next week. Since OKRs support the rolling forecast methodology, these reports also include the plan for the next four weeks. After each week the progress should be recorded on the OKRs if the change happened (on a scale from 0-1). [18] FishingBooker uses this type of weekly reporting and each employee send it to the official channels of communications which are visiable by everyone.

Weekly OKRs progress reports have the recommended template. Bellow is the exapmle how should this report be structured.

-----

Objective: Atomize processes in the finance department

KR: Build an automated reporting system on the website 0.7/1

KR: Learn to use databases through the knowledge of SQL 0.6/1

KR: Make a valuation of total asset 0.3/1

LAST WEEK:

P1 – Close the new deal from the list of top 10 affiliates. [DONE]

P1 – Create automation reporting module on the website. [IN PROGRESS]

P1 – Create a monthly P&L statement [DONE]

P2 – Improve SQL knowledge by watching 10 hours of video materials [IN PROGRES]

P2 – Finish reading the book “Reinventing the CFO” [DONE]

NEXT WEEK

P1 – Finish the automation reporting module on the website.

P1 – Make the evaluation report on the total assets.

P2 – Improve SQL knowledge by watching the rest of the video materials 5 hours.

Note: The automation didn’t achieve 100% completion. The testing phase is left.

NEXT 4 WEEKS

P1 – Finalize the reporting module on the website with testing it.

P1 – Make the valuation of the company based on the total asset value.

P2 – Improve SQL knowledge.

-----

Transparent communication is important factor during the implementation and using the OKRs. Therefore, the implementation of the proper information-communication system is necessary for the implementation of OKRs. The number of employees is one of the factors which will affect the type of system. However, by using the Composite index of ICT adoption, companies could measure their needs for the proper system. [4].

The first phase by which FishingBooker started implementing OKR as an official management system was the education of employees. This process lasted for one month. However, it wasn’t expected for employees to be capable to set the goals on their own at the very beginning. The education could be considered as the most important phase due to potential resistance by employees, since implementing OKRs is a big organizational change.

After the education part, the second part considers setting the goals on each level (personal and organizational goals) for the next quarter. This is also

traced by defining the scale for measuring success. The success rate is measured on a scale from 0-1. It is up to the company to put the scale on their own, however, the literature suggests using the following structure:

0.0 – No progress is made

0.3 – Small progress is recorded (what's accomplishable with minimal effort);

0.5 – Reasonable progress is recorded (what's accomplishable with considerable effort). [6]

0.7 – Expected progress is made (what's accomplishable with expected effort – as discussed before, 0.7, or 70%);

1.0 – Outstanding progress made (more than was expected).

FishingBooker, like other companies which implemented OKRs as well, used this system as a growth methodology and to stimulate highly ambitious goals. After implementing the OKR system in full, FishingBooker made a remarkable growth.

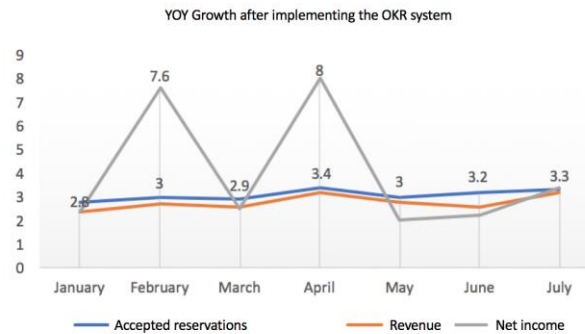


Fig 7: The growth after implementing OKR system [8]

As seen in Figure 7, aspects like accepted reservations have grown in average by 3 times year-on-year, revenue had grown by 2.8 times in average and net income in average 2.4 times, with extreme growths in February and April. Although the growth happened after the implementation of the OKR system, the author calls for additional research in the field of researching growth of the startup companies by using OKR as an official management system.

## 5. RESULTS AND DISCUSSION

The main purpose of this paper is to show the correlation between organizational success and employee's success in the field of OKRs, which is related to the main hypothesis H(0). Like the BSC, the OKRs are focussed on personal development and learning as well. This aspect could be seen through the activities related to priority – P2. The hypothesis H(1) implies that the number of OKRs does not have an effect on the overall success score of the company. The hypothesis H(2) implies that personal development directly affects the overall success of the company.

The research have been done during the 3 quartal period of 2017 (p=3), with 20 participants (n=20) as the variables in this example. The author collected and analysed the data using Pearson's r correlation to measure the correlation between:

- Success score of the company and personal success scores;
- Success score of the company and personal development success scores;
- Number of set OKRs and overall success score.

The principles of setting OKRs recommend setting 4-6 objectives with 3-5 key results which explain objectives better through metrics. Each of the employees had their personal OKRs for 3 periods – Q1 (p=1), Q2 (p=2) and Q3 (p=3).

Q1 is an exception, since the personal OKRs were directly related to overall company's OKRs. Through Pearson's r correlation, the author have measured the strenght of that relation and the impact factor of individual objectives on the general OKRs. Employees who accomplish 70% or more of their OKRs should get promoted. It is important to highlight that personal development and education objectives directly affect on total individual success score and it is one of the things that stimulate employees. On the other hand, personal development does not have a strict rule about including personal development of employees in the overall company's objectives. Since there should be 4-6 general objectives, personal development could have a minor effect on the total success score of the copmany.

The research have shown that 11 out of 20 employees used the proper number of objective and key results. The average number of objectives set by employees were 4.8, 3.9 and 3.15 objectives in Q1, Q2 and Q3 retrospectively.

The success score of variables consists of several objectives and the assumption is that there is the correlation between success score of each individual and the overall copmany's success score. 11 out of 20 employees used the proper number of objectives according to the OKRs principles (in Table 2 and Table 3, ΔQ represents the difference between no. of objectives and key results set by each individual and proposed number according to the OKRs principles).

Table 2: Number of set objectives

n	Δ Q1	Δ Q2	Δ Q3	mean (Q1-Q3)
1	3	1	-1	1.00
2	1	2	-1	0.67
3	1	1	-2	0.00
4	1	-1	-1	-0.33
5	-2	-1	0	-1.00
6	-2	-1	-1	-1.33
7	-2	-2	-2	-2.00
8	1	0	1	0.67
9	1	-1	-1	-0.33
10	2	1	-1	0.67
11	-2	0	0	-0.67
12	0	-2	0	-0.67
13	3	1	-1	1.00
14	2	1	-1	0.67
15	1	-2	-2	-1.00
16	0	1	0	0.33
17	3	-1	-1	0.33
18	1	-1	-1	-0.33
19	2	-1	-1	0.00
20	2	3	-1	1.33

Table 3: Number of set key results

n	Δ Q1	Δ Q2	Δ Q3	mean (Q1-Q3)
1	-1	-0.6	-1.33	-0.98
2	0.2	0.67	-0.33	0.18
3	-0.4	-0.4	-1.5	-0.77
4	0.4	1.3	1.3	1.00
5	0.5	1	0	0.50
6	1	0.33	-1	0.11
7	1.5	1	1	1.17
8	0.2	-0.5	-0.2	-0.17
9	1.9	2.33	0	1.41
10	0.2	-0.4	0.33	0.04
11	0.5	-0.25	-1	-0.25
12	-1	2	-1	0.00
13	4.5	-0.8	-1	0.90
14	-0.5	-0.6	-0.67	-0.59
15	0.8	0.5	-0.5	0.27
16	0.5	1.6	1	1.03
17	0	2.7	0.33	1.01
18	-0.34	0	0	-0.11
19	-0.17	0.67	0.67	0.39
20	-0.17	-1	0.67	-0.17

On the other hand, 12 out of 20 employees used the appropriate number of metrics (KRs) to measure the success. The author has tested the correlation between the proper number of OKRs and success score of the company, which has shown that the number of objectives has a medium effect on the success score with correlation coefficient  $r = 0.44$ . The number of KRs has a weak correlation with the success score ( $r=0.03$ ). Basically, the number of objectives and key results is not crucial for the success. Each organization will adopt

and modify the principles according to its vision and needs. According to the results, hypothesis H(1) is considered confirmed.

Each employee has involved personal development objectives in their quarterly OKRs. If the organization list personal development of their employees as one of the main objectives, then the success rate of personal development of each individual is directly related with the main company's objectives. However, it is assumed that organizations motivate their employees to achieve their personal development objectives at the beginning of an "OKR era" and later on give the priority P2 to personal development and focus on organizational development.

Table 4: Personal development score – Growth per quarters

n	Q2/Q1	Q2/Q3	Average success growth
1	-40%	100%	30%
2	-64%	-100%	-82%
3	142%	-21%	61%
4	0%	0%	0%
5	-1%	2%	0%
6	79%	0%	39%
7	0%	52%	26%
8	-37%	6%	-15%
9	0%	-30%	-15%
10	-63%	203%	70%
11	6%	-25%	-9%
12	40%	-10%	15%
13	0%	0%	0%
14	-25%	-20%	-23%
15	67%	-67%	0%
16	-30%	-7%	-19%
17	-39%	-28%	-33%
18	-22%	-100%	-61%
19	20%	-25%	-2%
20	-25%	11%	-7%

Only 6 out of 20 employees has recorded growth in their personal development objectives and 4 of them maintained the same level of personal development score during the 3 quartal period.

According to the hypothesis H(2), which implies that success score of the company is related with personal development success score of employees, the results have shown that the correlation is weak ( $r=0.35$ ). Although the correlation is not strong, this indicator depends on the company's vision and quarterly plans. If the company decides to list personal development as its key objective, then the correlation would probably be higher and vice versa. In FishingBooker, personal development directly affected the success score of each individual and affected the potential promotion of employees. However, it wasn't a key point during periods Q1-Q3.

In Q1 the personal development achievements were the highest (mean = 0.74), in Q2 slightly lower (mean = 0.66) and in Q3 the lowest in comparison to the previous two quartals (median = 0.62). By using the Pearson's r correlation per quarters, the results were 0.46, 0.42 and 0.98 retrospectively. In Q3, the correlation coefficient is the highest in comparison



to Q1 and Q2, due to both – lower personal development score and overall success score. By tracking the correlation between these two indicators, third parties could assume that the company’s politics on personal development is affecting whether the personal development will have a high impact on overall company’s objectives. In FishingBooker the company is stimulating individuals and their personal development by including them in the personal OKRs which could affect the potential promotion, but it does not list personal development as the company’s number one priority.

Table 5: Success score – Growth per quarters

n	Q2/Q1	Q2/Q3	Average success growth
1	-11%	-13%	-12%
2	82%	-39%	21%
3	41%	-15%	13%
4	2%	-19%	-9%
5	18%	19%	18%
6	73%	20%	46%
7	100%	6%	53%
8	3%	-34%	-15%
9	-16%	-14%	-15%
10	-41%	22%	-10%
11	1%	3%	2%
12	20%	-28%	-4%
13	-9%	-22%	-15%
14	-17%	-21%	-19%
15	1%	-60%	-30%
16	5%	-28%	-11%
17	-13%	-4%	-9%
18	-4%	-7%	-5%
19	-7%	-29%	-18%
20	-5%	53%	24%
C	13%	-35%	-11%

The overall success score has been falling during the 3 quarters period. However, it is not a sign of lower performance, since one of the main principles of OKRs is setting highly ambitious objectives. In the first quartal, many organizations and individuals within organizations try to achieve 100% of the goals. It is an assumptions that the first period is the testing period for OKRs and that organizations do not set the proper OKRs. On the other hand, it is important to track the progress of individuals. Having that in mind, 7 out of 20 employees recorded the growth in their quarterly achievements. The company’s success score was 0.7, 0.79 and 0.51 retrospectively.

When it comes to testing hypothesis H(0), the author has came to the following correlations:

Table 6: Multiple correlation matrix

	Average number of objectives	Average number of key results	Success Score	Personal Development Score	Company Success Score
Average number of objectives	1				
Average number of key results	0.318178826	1			
Success Score	0.440730486	0.029946294	1		
Personal Development Score	0.352048786	0.073285679	<b>0.753982763</b>	1	
Company Success Score	0.185301129	0.150910676	<b>0.547956722</b>	0.35502146	1

Personal development recorded a high correlation with personal success score (r=0.75), which shows the importance of personal development for the most of employees and their motivation to develop. However, the factor that personal development affects the total success score of each employee and the chance to get promoted leaves the opened question “Will employees accomplish this objective with the main motivation of boosting their total success score or with the primary motivation of developing themselves and their skills in order to provide better service for the company?”.

By measuring the correlation coefficient between personal’s success scores and company’s success scores per quartals, the coefficient (r=0.55) highlights that the scores have the medium correlation. The main hypothesis is confirmed but not with a high significance. Not each personal success score will be directly listed as the company’s success score (see Fig. 4). The structure of OKRs starts from the bottom. Personal success scores will form team’s key results which will measure the team’s success scores. Team’s success scores will form company’s key results used for measuring the overall success of the company. Companies chose which of the objectives have the higher priority and make bigger efforts to achieve them, which could affect on lower level of achievements for objectives listed as priority 2 (P2).

## 6. CONCLUSION

The concept of Strategic Goal Management (MBO) has been successfully used for years. However, with the technological revolution and the competitiveness of fast-growing (startup) companies, it became important, not just to set, track and achieve the objectives, but to set and achieve the most ambitious objectives. John Doerr has introduced OKR system as the modified MBO concept, with the bottom-up structure. There are several principles on implementing and using the OKRs which are set as a manual. In this paper the focus was on presenting the bottom-up concept of setting OKRs, but also on setting the proper number of objectives and key results which was measured through the deviation between the proposed and actually used number. Business process improvement (BPI) is also one of the factors which could foster the implementation of OKRs. Organization tend to improve their business processes based on various criteria which is more explained by Stojanović D. et all (2015). [20]

Through more frequent control and monitoring, OKRs encourage greater, by reporting on a daily and weekly basis and structuring the activities by P1 and P2, depending on the relation with the OKRs. The application of the OKR system to organizations of different sizes and structures is one of its

main advantages. Potential disadvantages are related to a human factor to manipulate OKRs in order to achieve them, by setting not that ambitious objectives. However with OKRs introduction and OKRs feedback meetings, this issue could be solved.

In the Republic of Serbia, this trend among young tech companies has also become popular. An example of the growth of one of such companies is shown in the paper. This paper gave theoretical research on benefits of OKRs system, but on the other hand gave an empirical research on how to implement OKRs and the correlation between the companies success score and personal success scores. Eventhough there are stricted principles on implementing OKRs, many companies, use this principle as a basis and modify the system according to needs of the company. The company that was analysed was FishingBooker – one of the most successful Serbian startup companies. FishingBooker uses quartal periods to set and evaluate OKRs and uses weekly reporting periods to track the progress of each individual. It was shown that employees tend to achieve their personal development objectives which have a strong correlation with their total success score. On the other hand, if personal development of employee is not the main company's objective, the correlation between these two indicators could be lower. The total success score of individual affects on overall company's success with medium correlation. This correlation coefficient could be higher if the company operates as a flat-line management. Since FishingBooker started forming teams from the beginning of 2017, personal OKRs affected directly team's OKRs and team's OKRs formed company's OKRs by using the bottom-up concept.

As the extension to this research, the author proposes a new research which will cover the motivation of employees during the OKRs and the length of implementation of OKRs in non-tech corporations as more complexed systems.

## LITERATURE

- [1] Awadallah, E. A., & Allam, A. (2015, July). A Critique of the Balanced Scorecard as a Performance Measurement Tool. *International Journal of Business and Social Science*, 6(7).
- [2] BetterWorks. (2015). *Getting started with Objective & Key Results (OKRs)*. Palo Alto: BetterWorks.
- [3] Contaifer, R. (2016). OKR as a tool for empowerment. Medium.
- [4] Čudanov, M., Jaško, O., & Saviou, G. (2010). Interrelationships of organization size and information and communication technology adoption. *Journal of Applied Quantitative Methods*, 5(1).
- [5] Drucker, P. (1954). *The Practice of Management*. Harper Business.
- [6] Đorđević, B., Stojanović, D., & Đorđević, M. (2013). Unapređenje performansi i kvaliteta usluge banke primenom balansne karte. *SPIN – IX Skup privrednika i naučnika*. Fakultet organizacionih nauka.
- [7] FishingBooker. (2017). FishingBooker – About Page.
- [8] FishingBooker. (2017, jul). FishingBooker Growth After OKRs Implementation. Beograd.
- [9] Ghutke, S., Jaiswal, R., & Thakur, D. A. (2014). Critical Analysis of Management by Objective in

- Indian Companies. *The International Journal Of Business & Management*, 2(10).
- [10] Gorzeń-Mitka, I., & Okręglika, M. (2014). Improving Decision Making in Complexity Environment. *Procedia Economics and Finance*
- [11] Kaplan Robert, N. D. (1992). The Balanced Scorecard: Measures that drive performance. 172-180.
- [12] Kaplan, R. S., & Norton, D. P. (2006). *Alignment: Using the Balanced Scorecard to Create Corporate Synergies*. Boston: Harward Business School Press.
- [13] Kheirandish, M. (2014, February). Measuring the Personal and Organizational goals Alignment: Developing a Practical Model. *Research Journal of Recent Sciences*, 3(2).
- [14] Kyriakopoulos, G. (2012, February). Half a century of management by objectives (MBO): A review . *African Journal of Business Management*, 6(5).
- [15] Martinsons, M., Davison, R., & Tse, D. (1999). The balanced scorecard: a foundation for the strategic management of information systems. *Decision Support Systems*, 25.
- [16] Mello, F. S. (2016). The Definitive Guide to OKRs. *How Objectives and Key-Results can help your company build a culture of excellence and achievement*.
- [17] Niven, P. R., & Lamorte, B. (2016). *Objectives and Key Results: Driving Focus, Alignment, and Engagement with OKRs*. John Wiley & Sons.
- [18] Paul R. Niven, B. L. (2016). *Objectives and Key Results: Driving Focus, Alignment, and Engagement with OKRs*. John Wiley & Sons, Inc.
- [19] Steiber, A., & Alange, S. (2013). A corporate system for continuous innovation: The case of Google Inc. *European Journal of Innovation Management*, 16(2), 243-264.
- [20] Stojanović, D., Slović, D., Tomašević, I., & Simenunović, B. (2015). Model for selection of business process improvement methodologies. *Toulon-Verona Conference „Excellence in Services”*, 19.
- [21] Wodtke, C. (2016). Introduction to OKRs. (L. Ruma, Ed.)
- [22] Wodtke, C. (2016). *Radical Focus: Achieving Your Most Important Goals with Objectives and Key Results*. Middletown.