# Characteristics of cognitive distortions in managerial work between men and women

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**Abstract**: Objective of this article is to evaluate of cognitive distortions between men and woman in managerial work. The Main attention is paid to issue of managerial work, which involves some specific knowledge, skills and crafts, because it ensures the achievements of goals of managed organization. In context of cognitive distortions based on Beck's theory of dysfunction schemes, we analyse differences between men and women.

Keywords: cognitive distortions, managerial work, communication, interpersonal system

JEL Classification: M50, P30, M11, M12, M19

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#### Introduction

George Kelly (1905-1967) is considered as a founder of cognitive psychology. The basis of his study is studying of mental (ideal, intellectual), but the most important study of cognitive processes.

According to Ruisel and Ruisel (1990), after the Second World War, cognitive psychology over times has shifted to a model of information processing. This model was based on the ideas described in symbolic logic and cybernetics on the one hand and Wurzburg and Gestalt psychology on the other hand.

Kvasnicka (2009) points to cognition as the set of operations that help us identifying our inner and outer world. He indicates all processes, by which inputs are transformed, processed, stored, invoked and used. This also applies to processes, which occur in the absence of various stimulations, such as hallucinations.

Sternberg (2002) points to cognitive psychology as people, who perceive different information, trying to understand, explain, remember and at the same time think about them. His main question is how people perceive different forms, why people remember some information, while others forget, about how to learn language, how they think, when they play chess or solve their everyday problems.

According to Ruisel (2012), the main task of cognitive psychology is to solve two problems. The first one is to examine the nature and character of human knowledge and the second one is to discover, how this knowledge are acquired and enjoyed. Ruisel adds that applied psychology is increasingly contributing to development of theory of applied psychology. Evidences are the number of important psychological theories, which come from practical psychology and especially psychotherapy (for example, Freud's theory of personality, Beck's theory of cognitive depression and his concept of cognitive distortions and diagrams, Seligman's theory of learned helplessness, Lazarus management of stress and others), at which the new techniques and themes, that require a deeper need of exploring and understanding the psychic reality of a human.

Abram's (1997) suggest that cognitive distortions can arise in the process of social interaction, mistakes in his knowledge, not only from the scientific but also from the psychological point of view. It is important to note that, especially in terms of predicting the intensity and duration of their own emotions, people make a very inaccurate estimate, which affects many areas in legal system, the psychological environment and cognitive psychology. The author shifts thought of our judgments based on knowledge and experience with a certain level of partiality and includes cognitive distortions, at which in those judgements will be operate the cognitive distortions. In case of these problems, knowing the most common cognitive distortions, which occur among other thing in decision making part of the organs, it would be possible to eliminate the seizures stemming from such distortions of perception.

Majtán (2007) describe a manager as a role of profession, which manages activities of organizational unit (departments, collectives), in terms of optimal use of human, material, technical, financial, informational and other resources to achieve set of objectives.

Prokopenko (1996) introduced the managerial work and relationship of individual requirements for his work:

- What to do? Mainly, managers to a middle levels (data analysis, financial analysis etc.),
- How to do? Competencies of managers (skills, time management, communicate etc.),
- **Personal traits and characteristics** (productivity, creativity, flexibility, etc.)
- Know how basic knowledge of about technology, relationship in organization, marketing.

#### 1. Data and Methodology

The "father "of thoughts of cognitive and dysfunctional schemes can be considered by A. T. Beck, who became aware of psychology through his cognitive theory of depression.

Beck (1979) has described his cognitive schemes as a summary of basis, often unannounced and unconscious assumptions about what a person is, what is world around him and what he can expect from him. Beck considers thought schemes as stable cognitive formulas by which one interprets his experience.

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On the Beck's theory of dysfunctional cognitive schemes was made a mathematical – statistical analysis of data by several methods of descriptive statistics and methods of inductive statistics T – test for independent samples helped us to the realization of the expected accuracy of the hypotheses which we have formulated.

#### 2. Results and discussion

The sample of survey was formed by 105 respondents. From this was surveyed 37 men (35.2%) and 68 women (68%). The education of respondents was in two cases at the same level. Secondary education with a ratio of 47 respondents (44.80%), university education of the same number of 47 respondents (44.80%) and 11 (10.4%) were sample of basic education. The work placement of respondents ranges across a wide range of options. The 105 interviewees was formed by 8 managers (7.60%) and 18 executives, which is (17.10%). Maximum of our scale forms 74 students (70.50%), one pensionary (1%) and the unemployed people were 4 respondents (3.8%). The age of respondents was ranged across a broad age structure of population. The minimum age of people was 18 years old and the maximum age of participants around 62 years

Results data were analysed and implemented in statistical software SPSS 20. According to a pre-processed questionnaire, we observed the occurrence of gender differences between men and women. The results confirmed gender differences between men and women in six surveyed questions, which we identified at managers (table 1).

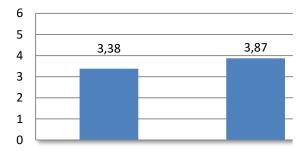
Tab. 1: A comparison of manager responses

	Gender	Average	T test	Significance
When taking a decision in non –	1	3.38	2.252	.026
working life, I am not wrong.	2	3.87	2.232	.020
I am convinced about infallibility of my	1	3.08	2.574	.011
own decisions.	2	2.46	2.07.	1011
I suppose that distortions in cognition	1	4.57	1.965	.049
are natural.	2	4.91	1,500	.0.15
Distortions correspond to the person	1	4.00	1.971	.043
who took the decision.	2	4.43	1,0,1	10.15
Distortion is inherent risk in deciding to	1	4.62	2.269	.025
be reckoned with.	2	5.04	2.20	.020
Every distortion can be corrected.	1	5.08	2.211	.029
2.02 distortion can be corrected	2	4.54	1311	27

(Source: own calculation, SPSS 20)

#### Examined areas of research:

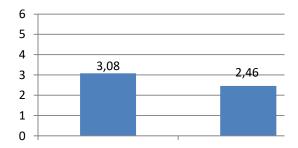
 Women, on question: "When taking a decision in non – working life, I am not wrong", expressed a rather weak consensus, on the contrary men tend to be less disappointed (graph 1).



Graph 1 When taking a decision in non – working life, I am not wrong

(Source: own calculation)

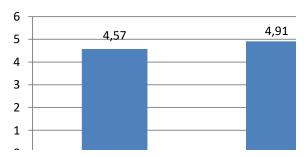
By assessing of question: "I am convinced about infallibility of my own decisions", both, men and women responded to disagreeing side of scale. The statistical significant difference between men and women was found only in disagreement. From this point of view, women expressed a higher degree of disagreement than men (graph 2).



Graph 2 I am convinced abou()t infallibility of my own decisions

(Source: own calculation)

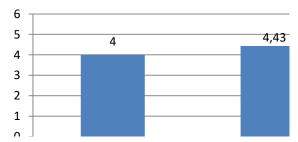
3. The results of mathematical and statistical analysis of question: "I am convinced about infallibility of my own decisions", both, men and women responded also on disagreement side of the scale. The statistical difference between men and women was found to a higher degree of consensus than disagreement, while women in the proportional scale predominate in their answer (graph 3).



Graph 3 I suppose that distortions in cognition are natural.

(Source: own calculation)

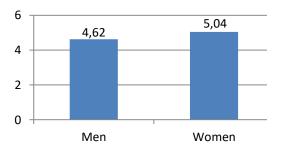
4. By assessing of statistical data at the question: "Distortions correspond to person who took the decision", the responses of the men were on a clear scale – more likely than not and the women in the item – Yes. According to this assertion, the managers move in the ratio of consent (graph 4).



Graph 4 Distortions correspond to the person who took the decision

(Source: own calculation)

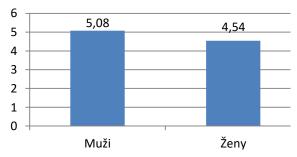
5. Under question from table 1: "Distortion is inherent risk in deciding to be reckoned with" both, men and women have expressed a high degree of consent and are more likely to agree in their answers (graph 5).



Graph 5 Distortion is inherent risk in deciding to be reckoned with

(Source: own calculation)

6. Under question from table 1: "Every distortion can be corrected" both, men and women expressed a relatively higher degree of consent, which women are leaning rather on the side of weak approval as disagreement (graph 6).



Graph 6 Every distortion can be corrected

(Source: own calculation)

Mathematical-statistical analyses identified six differences between men and women in managerial work. It points out to the diverse thinking, leadership and planning of managers. In our article we have identified a problem, which currently identifies many differences between men and women. According evaluating of answers from questionnaire we found out that there exist cognitive distortions and between men and woman in managerial work.

Based on the results from the field of cognitive distortions between men and women in the managerial work, we present several suggestions for improving and empowering personality of managers in their work environment.

#### Improvement of cognitive distortions of emotional intelligence

It often happens that a person with high intelligence can not to go around with people and fail in normal life situations. Conception of emotional intelligence explains why two people with same intelligence will not reach equal success or fail to do the same. Emotions are an essential element of ours survival and behaviour. There is no direct link between intelligence and emotional intelligence continuity. The fact, that someone achieves high scores in intelligence tests does not guarantee high scores score in EQ. People are so affected and shrouded by own emotions or emotions of his superiors or subordinates, totally forgetting the importance of his judgment in working environment. Such behaviour can lead to negative and important decisions. In order to prevent cognitive distortions in emotional intelligence we suggest bettering:

- ability to motivate and control yourself,
- not give up in work on hard times,
- manage stress and frustration,
- · the ability to influence the quality of their thinking,
- empathy.

**Self-regulation** (ability to know your own feelings) - knowing consciousness at the moment of its inception - is one of them base stones EQ. Unless, we are able to realize our true feelings, we are standing to be defenceless against them. People who are sure of their feelings, can do in their lives make better decisions. Only one, who knows why he feels the way he feels is aware of dealing with it with their feelings, can measure and organize them. With self-regulation managers are able to focus on difficult emotional conflicts and situations, which is a significant strengthening of the decision at the right moment.

**Empathy** (sensitivity to the motions of others) - Empathy is the basic "human quality". Feeling a second person requires being accessible with emotion, concentrating to listen and capture unspoken thoughts and feelings. This property with increasing emotional self-awareness is deepening. It can positively affect achievement in managerial work.

# Approaches to Strategic Decision Making

A very important role not only for the company but especially for company managers is strategic decision. When we are deciding, a stress level is draining for the worker. Such stress in certain situations can influence strategic decision making. To predict such situations, we would recommend an individual coaching together with rational approaches. Coaching can be applied in those places, which are subject to cognitive misconduct under the influence of stress and stressful situations. Together with a rational decision-making approach, managers will be convinced that their decision is rational and therefore carry out consistent and effective decisions that represent maximizing value for the entire area of managerial work.

#### Improvement of effective interpersonal communication

Interpersonal communication forms are the basis of a communication scheme in every company. With more staff, more managers are expected in the company. The diversity of people demands to more detailed communication at different levels of society. With fast communication, where we need to quickly pass on certain process information, some misinformation may occur, which is the emergence of cognitive distortions. Consequently, the misunderstood information can carry the entire communication scheme and the result may have the opposite meaning as very substance of information. In order to strengthen interpersonal communication between managers and employees, we suggest more effective communication through an interpersonal information system, we assume:

- significant shortening of the time needed for communication (more time for activities),
- easy to use (people, who never work with computer and information system),
- all workers have the same data (limitation of mistakes),
- information from different source are available in one place in a uniform shape,

#### 3. Conclusions

Cognitive distortions in managerial work are a strong indicator of the skills of managers, which they need to use. Behaviour of managers is often under impact of cognitive distortions, which they consider to be correct after a quick and irrational judgement. By analysing of cognitive distortions in managerial work between men and women we have identified several important contexts, which considerably affect managerial competencies. Suggested proposals (improvement of cognitive distortions of emotional intelligence, approaches to Strategic Decision Making, Improvement of effective interpersonal communication) presented, that there is still place for improvement of the managerial work. After applying of these suggestions, managers could perform their work more effectively, more thoroughly and rationally without more serious cognitive distortions.

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# Employer branding as a specific tool of personal marketing in healthcare facilities

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Abstract: This paper provide analytical insight into employer branding as a specific tool for personal marketing in healthcare facilities. Currently, organizations do not have a chance to achieve its goals and profits without quality and efficiency of working human capital, especially in health sector. To get the right people that organization wants and needs has become foundation for developing of marketing tools in personal management. We are talking about personal marketing that is constantly trying to ensure efficiency of all core areas for working with people in the company. The resulting effect of personal marketing is to gain and attach workforce to organization. It means using not only new tools, but also existing marketing tools, human resources management and enterprise management. Such tools include employer branding. The aim of this paper examines and analyse the using of employer branding in Slovak healthcare facilities. The basis for our case study was secondary data collected through official websites of healthcare facilities.

**Keywords**: employer branding, healthcare, personal marketing

JEL Classification: M12; M31; I10; I11

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#### 1. Introduction

Human resources are a creative element of every organization. They design and produce goods, provide services, control quality, care for application and marketing of products, allocate financial resources and define overall strategy and goals of organization. In present, organization does not have chance to achieve its goals and profits without quality and efficiency of working human capital. Getting right people to the organization wants and needs has become the foundation for developing marketing tools in personal management. We are talking about personal marketing that is constantly trying to ensure efficiency of all the core areas of working with people in the company. The resulting effect of personal marketing is to gain or attach workforce to enterprise. It means, using not only new tools, but also existing marketing tools, human resources, human resources management, and enterprise management. Such tools include employer branding.

### 2. Definition of employer branding

Ambler & Barrow (1996, in Sokro, 2012 p. 165), first applied concept of brand to HRM, viewing employer as brand and employees as customers. They define employer brand as "the package of functional, economic and psychological benefits provided by employment, and identified with the employing company, and identified with the employing company". Employer brand therefore provides both economic and psychological benefits to employees. According to Dell and Ainspan (2001), employer brand creates image of organisation based on their offerings in terms of values, systems, policies, and behaviours for attracting, motivating, and retaining the current and potential employees. It communicates to the targeted employees as 'great place to work'.

By Priyadarshi (2011) employer branding is fast emerging a potential tool not only to communicate to the potential employees but also to the existing employees that value proposition of current employer supersedes their competitors. It is known that 65% of operating costs come from human resource costs, so managing these down make you immediately more profitable. For this reason, it is important to understand that margin enhancement actually starts with your human resource attraction and retention strategy, which is inevitably, your employer branding. The results of study by Kucherov and Zaryalora (2011, in Adibah Ahmad and Daud, 2015, p. 692) strongly supported notion that the organization with employer brand gained a number of economic advantages due to lower rates of staff turnover and higher rates of HR investments in motivation attribute's activities of employees. Suikkanen (2010) stated that Employer Branding can be considered as a staff retention method as it influences the entire employment experience, promotes the concept of good place to work and decreases voluntary turnover. The findings of the study by Sokro (2012) propose that organization uses employer branding strategy in their business to pull in employees to stay with the company. It was also discovered that employer brand may fundamentally impact the choice of employees to stay or leave the organization. By Berthon et al. (2005), HR practitioners also suggest five steps to developing a strong employer brand:

- (1) understand your organisation,
- (2) create a 'compelling brand promise' for employees that mirrors the brand promise for customers,
- (3) develop standards to measure the fulfilment of brand promise,
- (4) ruthlessly align all people practices to support and reinforce brand promise,
- (5) execute the measure.

Sokro (2012) analyses found that 89.7% of respondents indicated that brand name of the organization influenced their decision to join organization they work for, and 86.2% would opt for their organizations as employers of choice because of the good will. This was further supported by Copenhagen Business School (2009) research findings. General studies show that 65% of candidates are attracted to an employer because of brand image, while the same study shows that 62% of employees leave an organisation because of the inconsistency of the brand image and the reality experienced once employed (Copenhagen Business School, 2009). Every rational employee wants to work in a company that has excellent reputation and is highly talked about publicly. For this reason, it is not surprising that a great percentage of the respondents indicate that the brand name or image of their organizations were crucial in their decision to work with them.

Berthon et al. (2005) gave a point of view of a scheme of five measurements of employer brand that are applicable to employees which are, Interest Value, Social Value, Economic Value, Development Value and Application Value:

- Interest Value is in view of the perception that an organization conveys an encouraging and enthusiastic
  workplace, inventive company policies and procedures, and uses creativity of its employees to develop
  prestigious products and services.
- Social Value, on other hand, alludes to the degree to which organization offers employees a friendly, enjoyable and pleasant working environment and promotes collegiality and teamwork culture.
- Economic Value is based on the perception that organization provides its employees above-average remuneration, job security and prospects.
- Development Value implies degree to which an employer acknowledges accomplishments of his
  employees, and gives career-enhancing experiences that act as a commencement for future employment.
- Application Value is in light of the perception that employer offers employees chances to apply their knowledge and skills at work and teach others through training, coaching and mentoring opportunities.

Moroko and Uncles (2008) argue that consumer, corporate, and employer branding share similar characteristics, that is: a brand has to be noticeable, relevant and resonant, and unique. They suggest that an employer brand can be regarded as a psychological contract between an employer and employee, and similarly corporate branding literature has long considered a brand as a promise from an organisation to customers. For this promise to be successful in an employment context (as it would in a product/service context), employer brand propositions should be established to ensure that rational and emotional benefits are congruent with existing and potential employees' expectations (Mosley 2007, 125).

# 3. Data and Methodology

The basis for our case study were secondary data collected through the official websites of Slovak healthcare facilities Svet zdravia a.s., which are consider as the most attractive employer in health sector in Slovak republic.

To reach the aim of this study, we use descriptive survey. A descriptive survey is a research method for gathering information from individuals for purposes of describing attributes of larger population of which individuals are members. Surveys can be useful when a researcher wants to collect data on phenomena that cannot be directly observed. In this study we decided to use one of the most popular tools of description survey, for which we consider descriptive case study.

McDonough and McDonough (1997) suggest that descriptive case studies may be in a narrative form. The challenge of a descriptive case study is that the researcher must begin with a descriptive theory to support the description of the phenomenon or story. If this fails there is a possibility that description lacks rigour and that problems may occur during the project. Yin (1984, 23) defines case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used.

# 4. Case study of employer branding in selected healthcare facility – Svet zdravia a.s.

In our case study, we decided to demonstrate the use of personal marketing and employer branding at the selected health facility operating through multiple facilities across the entire Slovak republic. As a suitable example, we choose Svet zdravia a.s. The company currently acts as the most attractive employer in the healthcare sector, which is also the result of its employer branding. Jobseekers in the healthcare sector can choose from the 17 hospitals that company is the operator of. The health care facility shall take into account the appropriate choice of staff who applies rules of communication.

Maintaining a welcoming atmosphere is very important, while giving patient feeling that they are one of the most important articles of a specialized hospital that can professionally take care of them. But the company has put a question for its candidates in the context of building its employer brand: who will take care of them?

Also, in this organization, external employer branding is a set of activities that lead potential candidates to send their CVs to their personnel agency. On the beginning, was effective to create a stand-alone career website that has proven too many companies. It gives opportunity to present candidates, for various information about company and especially for career opportunities. The form of content depends on the nature of company's business, but mainly on the people who already work in the company, and on type of target group of candidates, which company wants to gain.

In this case, career website should be young and fresh, because this organization considers the young specialist medics as their target group. But only creating a career website is not bringing the wishing results to the company. It is important to bring their target group of candidates to this website. There are two ways to lead candidates to the website - online and offline way. In this case, organization prefers to use online way, which contains online advertising, banner ads, or social media advertising. In the Figure 1, we can observe the using of a tool of external employer branding through career website of selected organization.

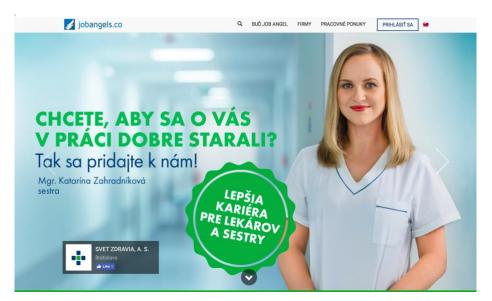


Figure 1 External employer branding of Svet Zdravia a.s. (Jobangels 2018)

Svet zdravia a.s. offers specific job positions through personnel agency jobangels.co, which refers the attendants to official site of company to the career section. At the company profile on the personnel agency page, candidates can learn about various benefits and information about working in company. In addition to this information, company uses form of external personal marketing. The main principle of functioning of this agency is based on the name job angel. Through this agency can anybody recommend their friends or relatives working in health sector to attend a job interview.

When an attendant successfully completes the selection process, personnel agency will pay a financial reward. The amount of the financial reward varies depending on the type of job. The average amount paid ranges from 150 to 250 euros. On career page, there are still available videos from current employees of the company, trying to bring benefits of working in company and enterprise culture to the candidate. In the Figure 2, we can observe the offer of specific job positions with financial reward.

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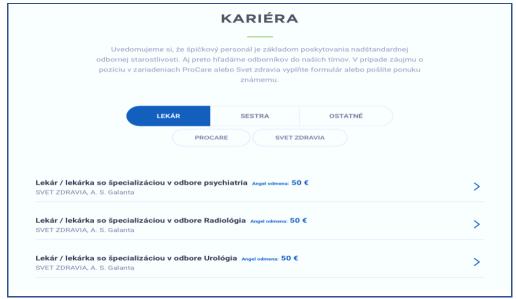


Figure 2 Offer specific job positions with financial reward (Procare 2018)

In November 2017, company opened the most modern and best equipped hospital within the Slovak republic. Marketing department decided to introduce this hospital to public and also to potential new employees on high level, what is considered as an extraordinary step in health sector in this country. They also used social networks and their tools, for example creating an event on Facebook or Instagram special, for this opening day. This kind of communication through social networks had a great impact not only for propagation of the new hospital but also for strengthening public relations and employer brand.

Subsequent external employer branding and empowerment of public relations was realized through PR articles in a trustworthy media and websites, for example, etrend.sk, dennikn.sk, webnoviny.sk, TV Markíza, TV JOJ and others. The company has ensured that not only brand of its healthcare facilities, but also brand of company strengthened in labour market and stood in competitive environment of attractive employers. In selected PR article by Hunk's journalist for etrend.sk, there was a conversation with the new head doctor of internal department at Michalovce hospital, which explained reasons for changing her employer (UNLP KE) and revealed benefits of a new working environment and corporate culture.

The internal employer branding helps to build internal relationship of employees with the corporate culture. Corporate culture is not just announced, it is supported by community activities of organization. Svet zdravia a.s. invests into several projects, which are not made for the profit. The projects are run to make a better place to work. Company offers its resources and the financial support. Internal employer branding helps to promote name of organization on job market. Job candidates notice the presence of company in community. They start to build positive relationship with organization. The employees are proud to work for this company, which is actively participating in community life. It is the main purpose of internal branding.

From last figure we can see the implementation of an internal employer branding. Their own educational institution - "Procare Academy" was designed to build a close relationship with their employees through the particular activities focused on engagement and education of employees. The organization carries out continuous employee training and identification with corporate culture under the idea:

"Our goal is to provide high-quality health care, high expertise and professionalism. It is up to us to have experienced people who are experts in their field and want to make the most of their potential and skills. Everyone is important in ProCare. That's why ProCare's training of our employees is one of the key activities. Through ProCare Academy, we provide participation in professional events such as conferences, seminars, congresses, and support for certification or specialist studies."

In practice, we can see positive results of applying an internal employer branding because the company was awarded by its employees in a Slovak awards – "The best employer of the year", as the best employer in health sector in Slovakia.

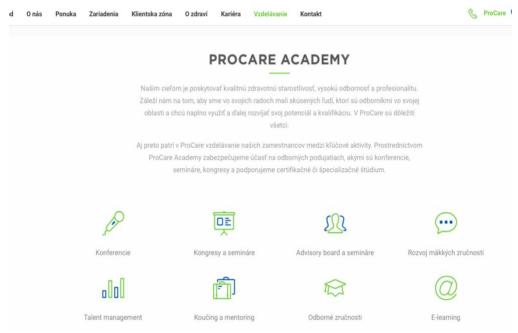


Figure 4 Internal employer branding of Svet zdravia a.s. (Procare 2018)

#### 5. Conclusions

Given that organization operates in a not very attractive sector such as health care, it has set its own personal marketing and employer branding on a very high level because it is aware of the problem of maintaining the talents and migrating them under better working conditions abroad. The effective employer branding of this organization has greatly contributed to its visibility and increased competitiveness in the labour market among other employers. This is also evidenced by the award of the best employer of the year 2017 in the health sector that the organization has received.

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# Human factor and its role in Business Intelligence projects success

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Abstract: The final result of Business Intelligence project in practice is determined by many factors. In essence, there are two main groups of factors – factors technological and factors personal (organizational). The paper emphasises the human factor and its role in the process of Business Intelligence implementation and use. The purpose of the paper is to examine the impact of a human part on the overall successfulness of Business Intelligence projects in Slovak business practice. Using a Business Intelligence with success doesn't mean just collecting data, it means going further to analyse these data and deliver the right information to the right people. The human factor is exactly what is crucial to data management and to understanding how information ought to be used effectively when doing business activity.

Keywords: Business Intelligence, human factor, sponsorship, Business Intelligence team, corporate culture

JEL Classification: M2

#### 1. Introduction

Institutions operating in today's turbulent and highly competitive environment feel the increasing pressure which forces them to respond almost immediately and in flexible, well-informed and innovative way. Business Intelligence solutions (BI) represent tools, methods and techniques which are strategic for success. They are becoming one of the uppermost priorities for many organizations of today as BI provide significant value by improving effectiveness of a decision-making process.

To ensure the BI project success, the critical role is played not only by the BI technology itself but also by the processes and people who use the available options and tools of the solution in deciding and fulfilling the set goals. Human factor is an integral part of the process of implementing and using BI solutions and one of the key determinants of their success, therefore, it is worth paying attention to it. Personal and organizational factors, and the role that human resources play in the process are the central point of our interest.

#### 2. Literature review

Business Intelligence (BI) applications are supportive tools for decision making. BI technologies help business managers make faster and smarter decisions [1], [2]. "BI applications are used to gain a clearer picture of internal processes, customers, supply chain or financial performance of the organization. They also derive significant value by using BI tools to devise better tactics and plans, respond more effectively to emergencies, and capitalize more quickly on new market opportunities" [3]. To sum up, used and implemented effectively, BI applications allows organizations to improve their business performance and to achieve a competitive advantage.

The overall success of BI projects in practice cannot be evaluated by the company's ability to create and implement a BI solution in due time and within the allocated budget. BI project success depends on the particular values that brings to the company (improved access to data, improved data quality, cost savings, time savings, more active users, etc.) [1], [4].

There is not a clear yardstick for successful Business Intelligence project. One deployment deemed a success may be viewed a failure by another organization, and vice versa. Success is usually measured by end user perception. But the most successful BI deployments don't use return on investment (ROI) as a measure of success [2], [4].

Successful BI solution is usually the result of the right combination of three elements of success [1], [2], [4], [5], [6], [7]:

- 1. Economic factors
- 2. Technical (technological) factors
- 3. Personal and organizational factors

Successful BI solution is not only about collecting data from existing source systems, it means that the available data can be further processed, analysed, and the right information will be provided to the right people. For the efficient management of data and the proper use of the information, the human factor is the key factor.

The software solution itself (technological capabilities and tools) does not guarantee BI project success, if the organization does not have the team of competent and motivated people who are able to assist in selecting, modifying and implementing the solution, and will use its tools correctly in their daily work [8]. Per the author, some features are more important than the technical capability of team members – it is: ambition, determination, initiative, proactive approach, motivation to achieve the best results, flexibility and eagerness for new knowledge and skills, etc. The author also proposes the creation of so-called "hybrid BI workers" – a link between expert IT professionals and ordinary business users, i.e. people who understand the basic processes in the enterprise, and also the BI technology enough to be able to identify a specific problem and solve it by using available technology options.

The greater the extend of BI use in the enterprise, the bigger the importance of communication and cooperation between departments. Interaction and information sharing among various users within the enterprise is one of the key determinants of the success of the entire project [4], [9], [10]. To ensure the cooperation in practice, the steering committee for BI should be set [8]. The committee can be composed of representatives from all business units and functional areas of the company, whose task will be f.e. to set goals and priorities of the project, resolve conflicting interests, identify new opportunities and decide on the allocation of funds.

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In general, people in organizations prevent the changes. The key how to overcome their resistance and ensure success of the project lies in timely preparation and additional support of users before and during the project [10]. It is necessary that the users receive at least a basic understanding of the technology and tools they will use [4].

In BI project a BI sponsor responsible for the outcome should be also involved [1], [4]. The project requires not only appropriate professional management, adequate financial resources and the willingness to invest are required too.

In literature, there are several personal and organizational factors that can be considered crucial for BI project success [1], [2], [4], [5], [6], [7], [11]. Some of them were discussed in this chapter. Based on the literature review and our own previous research experience [12], seven success factors in the category can be determined on which attention will be focused on:

- Segmentation of BI users (which means user type identification and selection of the right set of BI tools adequate to specific users' needs).
- 2. Active involvement of a strong sponsor.
- 3. Support from the executives throughout the company.
- 4. The right team of skilled and qualified BI workers.
- 5. Continuous support of users before and during the BI project lifetime.
- 6. Ensuring communication and cooperation between all participants.
- 7. Receptive business culture opened to changes.

#### 3. Data and Methodology

The realization of the survey started in January 2018 and is still in progress. The survey is realized via online questionnaire and until now attended by 19 subjects of various sizes and assorted types of economic activities carried out in Slovakia in which Business Intelligence (BI) solutions are currently implemented and used to support decision-making process.

Most of the qualified respondents comprises non-technological BI users (47.4 %), "hybrid" BI users, i.e. business persons with certain technological knowledge and skills (26.3 %), then corporate IT specialists (21.1 %), and others (5.3 %).

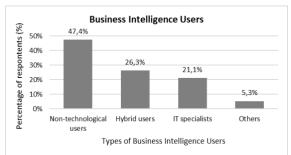


Figure 1. Types of Business Intelligence users involved into the survey

The formulation of research problem and the methodology used in the survey is based on the previous survey realized during the period 2014 – 2015 [12]. A research problem has been specified as the analysis of relationships and connections between selected personal and organizational factors of BI and overall success level of BI implementation and use in the management of enterprises in Slovakia.

The problem can be also formulated in the form of two central examination questions:

- What kind of relationship (positive or negative correlation) exists between selected BI success factors and overall success level of BI implementation and use in the management of enterprises in Slovakia?
  - Does the relationship exist at a statistically significant level?

Hypothesis H1 – H7 were defined, as follows:

- H1 Segmentation of Business Intelligence users is positively related to the overall (final) success of Business Intelligence implementation and use in the management of enterprises in Slovakia.
- H2 Active involvement of a sponsor is positively related to the overall (final) success of Business Intelligence implementation and use in the management of enterprises in Slovakia.
- H3 Support from all the executives is positively related to the overall (final) success of Business Intelligence implementation and use in the management of enterprises in Slovakia.
- H4 The right team of skilled and motivated BI workers is positively related to the overall (final) success of Business Intelligence implementation and use in the management of enterprises in Slovakia.
- H5 Continuous support of users before and during the BI project is positively related to the overall (final) success of Business Intelligence implementation and use in the management of enterprises in Slovakia.
- H6 Communication and cooperation between participants is positively related to the overall (final) success of Business Intelligence implementation and use in the management of enterprises in Slovakia.
- H7 Receptive business culture opened to changes is positively related to the overall (final) success of Business Intelligence implementation and use in the management of enterprises in Slovakia.

A dependent variable and 7 independent variables have been defined. The dependent variable is the overall (final) success rate of BI implementation and use in facilities in Slovakia. Independent variables are particular personal and organizational success factors of BI.

The dependent variable and independent variables were interval only. In the case of dependent variable, an interval scale was used with the assessment: failed (1) – rather unsuccessful (2) – fairly successful (3) – successful (4) – and very successful (5) implementation and use of BI solution. The answer key in the case of independent variables consisted of an interval of five-point Likert-type scale in the range: no (1) – rather weak (2) – average (3) – quite strong (4) – substantial (5) importance of a particular factor for overall success of BI project (Figure 2.).

Figure 2. Personal and organizational success factors of Business Intelligence

3	4	5
	3	3 4

<sup>1 -</sup> minimum level of impact on Business Intelligence project success

Based on the nature of the research problem and examination questions, appropriate statistical methods that can detect and analyse relationships between variables of our interest were chosen and applied – correlation analysis. The objective of correlation analysis is a description of the statistical properties of the relationship between two variables. The method was used to examine relationship between each of BI success factors (independent variables) and overall success level of BI deployment (dependent variable). To express the degree of correlation dependence between variables in the correlation matrix, the Pearson correlation coefficient was used. By using a two-sided t – test within T – distribution, tests of statistical significance of correlation coefficients were performed.

<sup>5 -</sup> maximum level of impact on Business Intelligence project success

#### 4. Results and discussion

The focus research point was the overall rate of Business Intelligence deployment success in Slovak practice. In particular, research has shown the rate of overall success of BI deployment and use in the management of surveyed enterprises (Figure 3.).

Figure 3. Overall Business Intelligence project success



Up to 21.05 % of businesses rated their BI solution as relatively successful, 36.84 % as successful, 10.53 % of enterprises considered it very successful, and in 31.6 % of cases the project was judged to be rather unsuccessful (26.32 %) or even failed (5.26 %). But consider the contention, that the overall success of BI projects in practice is assessed individually - it depends on the specific value, e.g. the specific end-effects (benefits) businesses want or wait for the implementation and the usage of their own BI solutions.

Then, respondents were asked to assess the level of importance of each factor in the category. Results (average rating of importance) are summed up in Figure 4. – personal and organizational factors of BI project success.

Figure 4. Average rating of Business Intelligence success factors



Rating scale: 1 - No important, 2 - Rather weak, 3 - Average, 4 - Quite strong, 5 - Essential importance of the factor

Based on the survey results, business culture that is opened to changes is rated as the most important factor within the personal and organizational category of success factors (4.05). The right team of BI workers is also fundamental for a successful BI deployment in practice (3.53). For ensuring success, communication and information sharing between users are matter of course too (3.47). According the respondents, another key to achieving success in BI effort is support from all the executives throughout the project duration. Compared to experience from abroad, Slovak companies undervalue the existence of a special sponsor involved in the project – they appreciate the importance of sponsorship only less as the average. Segmentation of BI users into groups and selection of the right set of BI tools adequate to users' requirements are also not considered as important as could be expected for overall (final) project success – in our survey, the factor reached the smallest rating level of importance (2.47).

Correlation analysis was performed through the correlation matrix (Figure 5.). To express the degree of correlation dependence between variables, the Pearson correlation coefficient (r) was used. As was expected, all independent variables correlate positively with the dependent variable (Succ). Based on the results of tests of statistical significance (p) of correlation coefficients, hypotheses were verified:

H1	r = +0.773	confirmed	significant at the 0.01 level
H2	r = +0.558	confirmed	significant at the 0.05 level
H3	r = +0.482	confirmed	significant at the 0.05 level
H4	r = +0.500	confirmed	significant at the 0.05 level
H5	r = +0.604	confirmed	significant at the 0.01 level
Н6	r = +0.297	confirmed	not statistically significant
H7	r = +0.598	confirmed	significant at the 0.01 level

Figure 5. Correlations

		SF1	SF2	SF3	SF4	SF5	SF6	SF7	Succ
SF1	Pearson Correlation	1	,513"	,197	,442	,349	,371	,411	,773"
	р		,025	,419	,058	,143	,117	,080,	,000
	N	19	19	19	19	19	19	19	19
SF2	Pearson Correlation	,513`	1	,290	,607**	,339	,036	,283	,558*
	p	,025		,228	,006	,155	,885	,241	,013
	N	19	19	19	19	19	19	19	19
SF3	Pearson Correlation	,197	,290	1	,384	,204	,355	,598**	,482*
	p	,419	,228		,105	,403	,135	,007	,037
	N	19	19	19	19	19	19	19	19
SF4	Pearson Correlation	,442	,607**	,384	1	,278	,118	,486*	,500°
	p	,058	,006	,105		,250	,630	,035	,029
	N	19	19	19	19	19	19	19	19
SF5	Pearson Correlation	,349	,339	,204	,278	1	-,057	,621"	,604"
	p	,143	,155	,403	,250		,817	,005	,006
	N	19	19	19	19	19	19	19	19
SF6	Pearson Correlation	,371	,036	,355	,118	-,057	1	,148	,297
	р	,117	,885	,135	,630	,817		,546	,216
	N	19	19	19	19	19	19	19	19
SF7	Pearson Correlation	,411	,283	,598"	,486*	,621"	,148	1	,598"
	р	,080	,241	,007	,035	,005	,546		,007
	N	19	19	19	19	19	19	19	19
Succ	Pearson Correlation	,773"	,558*	,482°	,500°	,604**	,297	,598**	1
	р	,000	,013	,037	,029	,006	,216	,007	
	N	19	19	19	19	19	19	19	19

 $<sup>^{\</sup>star}$ . Correlation is significant at the 0.05 level (2-tailed).

Succ - Overall (final) success rate of BI deployment in facilities in Slovakia

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

SF1 - Segmentation of BI users

SF2 – Active involvement of a sponsor

SF3 – Support from all the executives

SF4 - The right team of skilled and motivated BI workers

SF5 - Continuous support of users before and during the BI project

SF6 - Communication and cooperation between participants

SF7 - Receptive business culture opened to changes

#### 5. Conclusions

From the point of view of successful Business Intelligence (BI) deployment, it is necessary to consider several factors and relationships between them. Successful BI solution is not a well-chosen technology only. The human aspect is no less decisive for its right implementation and use in practice. Together with technological factors (BI architecture and tools, data quality...), human factor is also crucial for efficient data management and proper use of the information in the company's further activities.

In the paper, selected personal and organizational factors and their impact on BI project success in Slovak business practise were examined. Receptive business culture supporting decision-making based on facts and data analysis is a mission-critical. BI should be viewed as enterprise-wide solution used in every department of the organization. Before the project begins, company should build awareness and increase knowledge about BI and its possibilities, so that employees would understand how to use BI actively in everyday work. Subsequently, continuous support during the project and adequate financial resources are required. Even though, enterprise-wide executive support is the key to the success of any BI effort, the project requires also a special commitment of one designated leader – sponsor. Facilities successful in their BI efforts should analyse different user groups and provide tools that best fit their particular analytical needs. If they want to succeed, organizations need to build flexible and extensible BI architecture, and choose appropriate BI tools for each type of business user. Skilled and motivated BI staff, together with cooperation and relevant information sharing between all the participants are also needed for a successful BI deployment.

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# New spreadsheet functions of Microsoft Excel 2016

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**Abstract**: Using functions in modeling economic and financial models in spreadsheet software Microsoft Excel is necessary. The paper introduces new spreadsheet functions of Microsoft Excel 2016. It focuses on the creation of new decision-making formulas, examples show the use of new function SWITCH and compares it to well-known Excel function IF.

Keywords: Excel; programming; functions

**JEL Classification:** C88

#### 1. Introduction

Microsoft Excel is a spreadsheet software which helps users to organize data in rows and columns of cells and it is simpler than most CAAT¹. It is also highly flexible, with huge list of functions. It is possible to install Add-Ins with advanced features and lower cost for installation. Microsoft Excel has many powerful features and by using this can easily find context of large data tables. Excel has data size limitation of processing only one million rows or records of data (Varma, 2014).

A large number of data tables about tourism is available, international tourism expenditures of international outbound visitors in other countries, including payments to foreign carriers for international transport is available f.ex. here: http://data.worldbank.org/². Also, Eurostat table is available at http://ec.europa.eu/eurostat/web/tourism/data/main-tables and many many other. All these dates could be analyzed in CAAT tool as Microsoft Excel is. Using Excel spreadsheet function increases variability and complexity of data analysis.

Excel as a software system is a bundle of a functional, declarative language of spreadsheet formulas and an imperative language of macros in VBA<sup>3</sup>. They are fundamentally different and require completely different styles of programming, so that proficiency in one of them does not help in learning the other. In fact, many experienced spreadsheet users avoid using VBA.

Taking those factors into account, it is not surprising that (Peyton et al. 2003) proposed an extension to Excel by allowing user defined functions defined by means of spreadsheets. They wrote: From a programming language point of view, then, spreadsheets lack the most fundamental mechanism that we use to control complexity: the ability to define re-usable abstractions. In effect, they deny to end-user programmers the most powerful weapon in our armory. Later, they identify the main target users of the proposed solution to be the moderate users, i.e. those who understand the spreadsheet paradigm fairly thoroughly. Not only have they already mastered the prerequisites, but they also tackle more ambitious and long-lived applications. (Peyton et al. 2003) Then the authors conclude: The implementation of a function must be defined by a spreadsheet, because that is the only computational paradigm understood by our target audience. (Balson, 2014)

# 2. New Excel 2016 Switching functions

In Excel version 2016 some new switching function was released in January 2016 update. There are new function IFS and function SWITCH in logical Function Library. It allows users to create formulas in brand new style. These functions is available only in Office 365 Excel Online and in desktop version MS Office Excel 2016.

### Logical function IFS

Logical function IFS allow to create formulas like nested functions IF with no need to nest functions. How to use the function IFS is described at the next example similar as example at Figure 1.

Figure 1: coding numbers to text

1 excellent	4
2 very good	
3 good	failed
4 failed	failed

Source: author

=IFS(num=1;"excellent";num=2;"very good";num=3;"good";num=4;"failed")

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<sup>&</sup>lt;sup>1</sup> Computer-aided audit tools

<sup>&</sup>lt;sup>2</sup> http://data.worldbank.org/indicator/ST.INT.XPND.CD

<sup>&</sup>lt;sup>3</sup> Visual Basic for Aplicatios

There is only one difference between old switching function IF and new function IFS. If number in cell M23 is outside of range <1, 4> new function IFS returns error message #N/A not FALSE. Here is the solution of the same task using old switching function IF, =IF(num=1;"excellent";IF(num=2;"very good";IF(num=3;"good";IF(num=4; "failed")))). With new switching function IFS there is no nested closing brackets at the end of the formula.

Well, new logical function IFS could be used to calculate bandwidth tax rate from tax base. Following example shows using new logical function IFS instead old function IF.

Figure 2: coding numbers to text

bandwith	tax	base	59 250,00 Kč
7 200,00 €	15,0%	taxR	18,0%
48 500,00 €	18,0%		
114 000,00€	20,0%		

Source: author

= IFS(base <= txZn1; txVa1; AND(base > txZn1; base <= txZn2); txVa1; AND(base > txZn2; base <= txZn3); txVa2; base > txZn3; txVa3) and with old IF function <math display="block">= IF(base <= txZn1; txVa1; IF(base <= txZn2; txVa2; txVa3)).

#### **Logical function SWITCH**

There is another new logical function in Excel 2016 logical Function Library, function is named SWICTH. An example is at Figures 3 and 4.

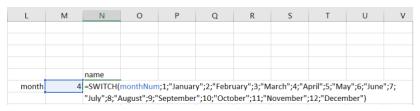
Figure 3: coding numbers to name of months

L	М	N
		name
month	4	April

Source: author

In the example using new function SWITCH from logical Function Library is shown. When filling the table user can put only number of month, name of month will atomically appear in the next column. Here is the function SWITCH source code according to Figure 2.

Figure 4: using SWITCH function



Source: author

Everyone can say that this example could be solved also using Lookup & Reference function VLOOKUP. When using function VLOOKUP, a little table of all month numbers and month names is necessary. Function VLOOKUP returns text from the second column of this table according to number of month at first column. If number of month is not find at first column of table function VLOOKUP returns error message #N/A. Author want to talk about more complexity SWITCH function for creating switching formulas. Using SWITCH function increased formulas understandability. It is similar like using command switch in C++ programming language.

#### 3. Conclusion

When using new switching function SWITCH principe of formulas is more understandable than with old logical function IF nested in the other logical function IF, with many close brackets at the end of formula. New logical switching functions can help users with easier formulas creation.

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# Specifics of a marketing mix for a startup business

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Abstract: The goal of the study was to identify the most important marketing mix tools for the startup organization. The partial goal was to point to the composition of the various elements of the marketing mix of the startup organization. We can divide the study into several chapters. The first part deals with the basics of the marketing mix and its theoretical basis and discusses the specific elements of the marketing mix. The aim of the analytical part was to analyze the specific elements of the marketing mix in the selected startup of the company. The practical part of the thesis focuses on the evaluation of the survey, which concerned the respondents' views on the marketing of the given enterprise. We surveyed 312 respondents who responded to 13 questions using our questionnaire. The last chapter of the paper focuses on recommendations and suggestions on improvements in all aspects of the marketing mix in the company, and so on the acquisition of new customers.

Keywords: marketing mix, startup organization, promotion

JEL Classification: C22; C51; Q11; Q13

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#### 1. BASIC THEORETICAL BACKGROUND IN THE FIELD OF MARKETING MIX

Most people when hearing the word marketing they associate it with sales or advertising. Both are part of marketing, but marketing itself means a lot more (Kincl et al. 2004). Marketing itself seeks to manage market relationships. The seller must search for buyers, map their needs, design high-quality products and services, set prices, promote sales, store goods and deliver it to the customer (Kotler, Armstrong 2004).

We often encounter distorted marketing insights, when marketing is understood as an aggressive sales policy. The fundamental difference between the sales and marketing concept applied in practice is as follows: if the company applies a sales concept, it first creates the product and then, through various methods, convinces the customer to buy it, trying to adapt the consumer's requirements to its offer. Marketing is the exact opposite of this approach. The marketing-oriented company first looks at what the customer needs. It then focuses on developing a product that suits these needs and at the same time generating a reasonable profit (Dorčák, Dorčáková 2008). An organization cannot be successful if it does not respect the needs of the customer (Kincl et al. 2004).

Marketing is trying to explain and predict how organizations offer and sell their products, and under what conditions, and how they are gaining and buying in an economy of free competition. In the competition, buyers will prefer those sellers who offer the product most suited to their needs, preferences or financial capabilities. A marketer tries to discover what people want and proceeds accordingly (Cibáková, Bartáková 2007). However, not all marketers follow the marketing concept. When working to meet customer needs and to build business success, many businesses apply questionable marketing practice. These are also marketing activities that at first glance may look harmless, but in fact cause harm to particular consumers (Kita et al. 2000).

The extent to which the company approaches its customer determines largely its market position and the future rise or fall (Dorčák, Dorčáková 2008). Satisfying the customers' needs is a major marketing task and achieves it thanks to a marketing mix. The marketing mix is the core of the concept of modern marketing. It represents a combination of all the elements in order to satisfy all the expectations and needs of the customers. The term marketing mix is associated with the name of N. H. Borden, who compared the marketing mix to the "cake-mix". According to Borden, we can improve the flavor of the cake by increasing the proportion of one ingredient (sugar). It emphasizes, however, that this mixture must not be "overdone". This would break the balance of the individual components. The same happens with the marketing mix. Even the results depend on the correct ratio and the right combination of all components of the marketing mix (Dudinská et al. 2000).

The most important task of the marketing mix is to find the right balance. All businesses have limited resources and it need to be distributed efficiently (Russell – Jones 2005). The combination of elements, which make up the marketing mix is changing and is different in each business. The marketing mix reflects the business objectives and its capabilities as well as the impact of the outside environment. The company will only succeed if all of the company's sectors work together. If only one sector does not work, it will endanger the company's success (Dorčák, Dorčáková 2008).

Marketing mix definitions differ. Schoell Gultinanom (1998) define a marketing mix as a set of marketing tools that a company uses to reach its target market objectives (Jakubíková 2008).

According to Dudinská (2000, p. 49): "marketing mix is the essence of the concept of modern marketing. It is the means by which many customer requirements are being met. It represents a combination of all the elements in order to satisfy all the expectations and needs of the customers".

The marketing mix is a tool that we can combine and coordinate. The original, best known and most frequently cited is a marketing mix consisting of four tools, 4P (Srpová, Řehoř 2010). The theory, based on the four P concept, says that when we try to make a product at the right price with the right marketing communication, in the right place, then the marketing program will be effective and successful (Dudinská et al. 2000). Marketing as part of a business that is responsible for attracting customer attention has created a number of misleading practices. Although, the advantage of the four P's is that they represent a simple, reliable management idea, widely used for more than 40 years after it was formulated (Russell-Walling 2012).

#### 2. METHODS OF RESEARCH AND SAMPLE SURVEY

The main objective of the research part of this work is to identify the most important elements of the marketing mix for the purpose of the selected startup of the company. The partial aim of the analytical part of the thesis is also a detailed analysis and elaboration of individual elements of the marketing mix of the given enterprise. Our aim is to determine the importance of individual elements of the marketing mix with respect to the marketing phase.

Another aim of this part of the research is to conduct a survey that focuses on the opinions and preferences of respondents in relation to the use of individual forms of marketing communication. The purpose of the analysis is to identify the most important tools of marketing communication for the needs of the newly emerging company and to propose recommendations for the marketing strategy of the company.

Based on established research objectives, we have formulated the following hypotheses:

H0: We assume that there is no linear relationship between the elements of the marketing mix (product quality, price, location, promotion) and whether the respondents recommend their business to the known one, and therefore p = 0.

H1: We assume that there is a linear relationship between the elements of the marketing mix (product quality, price, location, promotion) and the willingness to recommend it to their acquaintances, and therefore  $\rho \neq 0$ .

In the survey, we used a questionnaire form to obtain data, through which we surveyed the views of respondents on individual questions. The questionnaire was created using Google Spreadsheets and then we delivered it to the respondent through the Facebook Social Network where we addressed the target

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group of respondents. We conducted the survey in December 2017. The questionnaire was anonymous and contained of 13 questions. The respondent always chose one answer that best suits them. We systematically sorted the questions according to the individual elements of the marketing mix. We also asked about the age, gender, and economic status of respondents in the survey to clarify the sample. 312 respondents filled out the survey. More women participated in the survey, 65% of the total number of respondents. Men participated in the survey at 35% of the representation.

#### 3. RESULTS AND DISCUSSION

In this section, we will present the evaluation of the selected survey questions, which are followed by statistical evaluation. For the question number 4 most respondents answered positively. 35.90% of the respondents noted that they are "definitely satisfied" with the quality of the products the company offers. 35.26% of the respondents are "rather satisfied" with the quality of the products. 26.28% of the respondents said they "do not know" if the company offers high-quality products. 1.92% of the respondents said, that they are "rather dissatisfied" with the quality of the product and 0.64% chose the option "definitely dissatisfied". Table 1: "How satisfied are you with the quality of the products the business offers?"

	N	%	N	%
Answers				
Definitely satisfied	110	35,26	110	35,26
Rather satisfied	112	35,90	222	71,16
I do not know	82	26,28	304	97,44
Rather dissatisfied	6	1,92	310	99,36
Definitely dissatisfied	2	0,64	312	100
Overall	312	100,00	312	100,00

Source: Own elaboration

As can be seen from the table, 35.26% of the respondents can not yet judge whether the company offers an affordable menu, coffee and croissant at a discounted price. 26.28% of the respondents indicated the answer to this question "rather yes". 27.56% of the respondents think that the company "definitely offers" such a preferred menu. 8.97% think the company "does not offer" such benefits. The fact that the

company "definitely does not offer" was identified by 1.92% of respondents who participated in the survey.

Table 2: "Does the company offer an affordable menu"?

	N	%	N	%
Answers				
Definitely yes	86	27,56	86	27,56
Rather yes	82	26,28	168	53,84
I do not know	110	35,26	278	89,11
Rather no	28	8,97	306	98,07
Definitely no	6	1,92	312	100
Overall	312	100,00	312	100,00

Source: Own elaboration

For the question of whether an enterprise has a good placement respondents responded positively. Almost half of the respondents, 48.08% think the business is "definitely" at a good place. The view that 30.77% of the respondents have is a "rather yes". 6.41% of the respondents cannot objectively assess whether they have a good placement. 10.25% of the respondents chose "rather no". The overall dissatisfaction with the sum of the company is 4.49% of all respondents

Table 3: "Do you think a business has a good placement?"

	N	%	N	%
Answers				
Definitely yes	150	48,08	150	48,08
Rather yes	96	30,77	246	78,85
I do not know	20	6,41	266	85,26
Rather no	32	10,25	298	95,51
Definitely no	14	4,49	312	100
Overall	312	100,00	312	100,00

Source: Own elaboration

Since the surveyed company is a startup business, we asked the respondents about their opinion on the advertising of the business before the opening. 26.28% of the respondents think that the business had (definitely yes) a good advertising before the opening. 29.49% reported that the company had good advertising (rather yes). Of all the respondents, 22.44% cannot judge the ad. 17.94% chose that the company did not have a good advertisement (rather no), and 3.85% of the respondents thought the company definitely did not have (definitely no) a good promotion before the opening of the company.

Table 4: "Do you think the business had a good advertising before the opening?"

	N	%	N	%
Answers				
Definitely yes	82	26,28	82	26,28
Rather yes	92	29,49	174	55,77
I do not know	70	22,44	244	78,21
Rather no	56	17,94	300	96,15
Definitely no	12	3,85	312	100
Overall	312	100,00	312	100,00

Source: Own elaboration

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Nearly half of the respondents, 48.72% would "definitely recommend" the company to their acquaintances. 26.92% of the respondents said "rather yes". 18.59% of the respondents are not determined whether they would recommend the business so they chose "I do not know". On this question, 2.56% of the respondents replied that they would not recommended (rather no). 3.21% of the respondents chose "definitely no".

Table 5: "Would you recommend the company to your acquaintances?"

	N	%	N	%
Answers				
Definitely yes	152	48,72	152	48,72
Rather yes	84	26,92	236	75,64
I do not know	58	18,59	294	94,23
Rather no	8	2,56	302	96,79
Definitely no	10	3,21	312	100
Overall	312	100,00	312	100,00

Source: Own elaboration

To verify the hypotheses we used a Pearson correlation, which expresses the degree of linear dependence of two variables. In Pearson's correlation, the positive value means that the variables change together in one direction. On the contrary, the negative value means that the variables change in the opposite direction of the anula, which means that they change independently. When evaluating the correlation, a scale is used where the resulting value, which is less than 0.1, is negligible. Values from 0.1 to 0.3 mean a small association between variables and values above 0.5 mean a big association between the variables

To verify the hypotheses, we used questions number 4, 6, 8, 10, which we then analyzed in relation to question no. 13, where the respondents answered whether people would recommend the business to their acquaintances. Using these questions, we found that product quality, price, placement, and promotion have an impact on whether customers recommend a business further to their acquaintances. As the table shows between the variables, there is a linear dependence, as the values are positive, so we can confirm the hypothesis H1. On the other hand, we reject the hypothesis H0.

The survey showed that the biggest impact on whether the customers recommend it to their acquaintances is the quality of the product. The value of this indicator was 0.704 for the Pearson correlation. The other three elements that we compared, the price, placement, and promotion, have average correlation values and contribute approximately to the same value to the consumer's decision.

Table 6: Pearson correlation

	Quality of the product	Price	Place	Promotion
Impact of elements on business recommendati on	,704	,498	,448	,408
N	312	312	312	312

Source: Own elaboration according to SPSS Statistics

#### 4. CONCLUSION

The survey we conducted focused on the marketing mix of the startup organization. In the framework of the conducted survey, we identified the respondents' views on the selected newcomer business. For a newcomer, the founder or founders need to understand that it is appropriate to process the marketing strategy prior to placing the product or service on the market. Such an enterprise still does not respond to customer suggestions, because the customer has not yet learned about the product, did not know the service. As part of the marketing mix, an enterprise should first understand and develop a product strategy because it cannot develop a pricing or distribution strategy without knowing what product or service will be offered. It is also beneficial for a newcomer business to choose a suitable way of promotion. It should make use of all the options currently available to get as many people as possible. Nowadays, there are many possibilities. The company also has to think about introducing itself to people. While it is often said that even bad advertising is an ad, it is not always valid for a startup business. The selected business was first made available to customers in February 2017. The survey was conducted in December 2017, precisely because respondents were able to compare the advertising of the business before and after the opening. For over a month, we have been tracking how an enterprise is getting new customers, how it directs its business, its offers and how customers respond to this offer. Within the 4P marketing mix, we have developed suggestions and recommendations for each element. We conducted a survey to see if there is a dependence between the various elements of the marketing mix and the behaviour of the consumer. The benefit of the work is that we find the biggest impact on consumer decision-making on the product and the quality of the product the company offers. The most important element for organizational startup needs is therefore a product as a marketing mix tool. Therefore, every new business should pay attention to this aspect. Other elements of the marketing mix are equally important for the consumer. After the entrepreneur decides what will be the customer's offer, what design and what additional services the product chooses, it is important to focus on the other elements of the marketing mix. The company can offer a good product, but on the other hand, the high price or bad advertising can discourage the customer from another visit.

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# The importance and impact of blogs on online marketing

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Abstract: Marketing affects every aspect of company life. In management it is essential to understanding business management, that marketing participation in management processes is essential. There are many companies that are still at sharply increased marketing functions implemented marketing concept just outside. The role of marketing in the company's planning and fulfillment of conception, pricing, promotion and distribution of ideas, goods and services, which leads to the realization of a mutual meeting the needs of individuals and organizations. Poorly chosen or no marketing strategy can mean the demise of his company. This problem plagued now in Slovakian business sector most small and medium enterprises. This is logical, because smaller businesses have a limited number of workers, many of them don't have marketing department and realize marketing strategies intuitive. This is an unfortunate solution many times. Blogs are social media that are owned by companies. Therefore, online identity building via blogs is important from the long term point of view. Blogs allow to distribute more complex content following the needs of potential buyers to obtain information on companies' products.

Keywords: company; marketing; blog

JEL Classification: M30: M31

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#### Introduction

E-marketing is here because of the Internet. This is a very simple explanation, however. The Internet has been here for a long time, but the beginnings of a real marketing on the Internet can be traced to late nineties. Advertising on the Internet has existed since 1994 and some marketers began to realize back then that the Internet's potential is great. Technical possibilities and in particular limited access to the Internet was holding e-marketing back. However, the situation started to improve and companies have begun to present their products/ services and even themselves online. Web pages started replacing printed brochures, catalogs and then they finally started selling. Over time, web pages began to develop and improve thanks to multimedia, newsletters, banner ads and the like. E-marketing was born the second companies started to research customer preferences, their views, comments on the product and the like. Internet then became a tool that transformed marketing (Janouch 2011).

#### 1. Literature review

Prior to the Internet there existed information asymmetry between customers and sellers. The reason for this phenomenon was the fact that all the necessary information about products were held by sellers, taking their own decisions about whether to provide customers with such information in the buying process (Scott 2014). Internet has reduced this asymmetry and allowed those interested in the product to search for information in different places, while being limited only by the size of the Internet as a whole. Companies that were able to understand the information needs of their customers and that also included blogs into their marketing strategy can now provide comprehensive information aimed at acquiring customers at the stage of brand awareness phase and lead them to the phase of decision-making - while their product is one of the available options. A number of authors concentrate on these issues, such as Gerrikagoitia et al. (2015), Dorcak et al. (2014), Constantinides (2014), Peter et al. (2014), Apăvăloaie (2014), Rahimniaa – Hassanzadehb (2013), Tiago – Tiago (2012).

The fact to what extent the company is able to get closer to your customers, determines its position in the market and from that, linked to the rise or fall. Kotler (2007) considers the claim that "the aim of marketing is to know customers and their needs so well that the products and services it sold itself." If we understand marketing as tools to help better meet customer needs, this idea is very apposite and logical.

According to Cibáková (2008) another very important aim to make a reasonable profit in a market economy, it is flowing out of funding for further development of the company. Through purposeful management of the marketing process, the company aims to achieve a level of demand that will allow it to meet the targets it has set. It is possible to claim that marketing management is a result of the demand management.

Many authors report in Control Theory opinion of Peter Drucker that "as a marketing activity to meet the needs through the market is so fundamental that it can not be considered a separate management function. It is the general view of any business sense in terms of its final result, that is for consumers who decide on the company's profit "and considered marketing as a ubiquitous motivator of behavior. Marketing management systems are considered an important and integral management area. So characterized management systems highlight the importance of marketing for the company development. From this perspective, marketing directs the development of the company is designed to suit customer wishes (Čimo; Mariáš 1996).

Development of Internet advertising recorded since the mid-nineties, numerous changes. Unprecedented rise in worldwide use of the Internet in the last decade of the last century has been accompanied by an immediate effort to use the Internet environment for the promotion and visibility.

There are hundreds of options for where to place the ad, as well as various forms of advertising. In general, it is always necessary to consider, which is the aim. Whether it be driving traffic, branding or direct product sales. Another form we choose for end customers and another for customers of company. It is necessary to reflect on what market segment is our goal - who our customers are, what their behavior, which portals they visit, what they are looking, they are more active or passive, watch TV, and so on. Then it is necessary to develop a budget and determine how they will measure the fulfillment of its objectives. Tests are conducted using quantitative and qualitative indicators wchich are difficult to measure. Among the common indicators include the number of people who saw the ad, click through rates, the rate and number of conversations and many other indicators (Janouch 2011).

Author Kotler (2006) says that at the turn of the millennium occurs in Internet advertising to a certain disillusionment. In advertising campaigns with image ads they have invested a lot of money, but usually not quite successfully. Advertising campaigns were expensive and minimum efficiency. After a stellar entering the advertising space on the internet looking sober and explore tools for better planning advertising campaigns and to effectively evaluate the effectiveness of online advertising.

As well as the Internet considered the fastest-changing media and the Internet advertising market is one of the most variable and flexible responsive not only to the demand of the beneficiaries but also the needs of advertisers. For more effective planning of advertising campaigns the Internet community begins to address the possibilities for greater targeting of advertising messages according to specific user demand and more detailed monitoring of their conduct immediately after seeing the advertising notices. With the advent of pay per click begins the advertiser pays for the actual outcome of the advertising campaign, that is for the number of visitors who actually responded to the ad. Once it is created and optimized website, it is necessary to embark on advertising. It is a logical step for which there are several reasons (Janouch 2011):

- advertising on the Internet is a relative cheap,
- it can be precisely targeted.
- in contrast to other media it is well measurable,
- it is interactive, ie. allows, in certain cases, feedback,
- operates continuously 7 days a week, 24 hours a day.

According to Sterne (2010) and Scott (2013), blog belongs to social media. Social media are online tools that allow users to create content and distribute it via the Internet (Sterne 2010). A blog is a personal journal in which posts are added in chronological order. This feature of blogs changed with the advent of social media arrival to the business itself. The result is that many businesses today use blogs to distribute information relating to their activities (Handley 2014). Blog is a digital heartbeat of each brand (Young 2013), an important tool for brands' marketing (Ryan and Jones, 2012) that represents new opportunity of bidirectional communication with customers (Wuebben 2011). It offers the ability to consistently attract readers' attention with new contributions and a fresh batch of information (Cho 2012) and gives people a reason to return (Jefferson and Tanton 2013) by trying to meet their expectations (Griffin 2013). According to Handley and Chapman (2012) a blog is the first place that a potential customer visits. With so many easy software that is simple to use for the end user, it is not difficult to operate a professional-looking blog that allows you to quickly create content in real time (Scott 2013), and whose management is much easier when compared to the website (Wright-Porto 2011). Furthermore, most of the software needed to blogging (such as WordPress) is available free of charge (Maya 2010).

Blogs are a simple web applications, people use them to publish their personal views. People who read these articles are welcome to comment and share what we created online WOM (word of mouth), which means a shift information or story orally from one person to another. In today's digital age it can be considered for the use of social networking sites, chat rooms and other communication tools. Bloggers today are an important part of public relations, to which companies cooperate with journalists like. Slovak digital advertising agency TRIAD Advertising has at www.blog.triad.sk company blogs where they can contribute to enhancing brand reputation, to catch up customers as well as an increase in traffic (Králiček and Král 2011).

We agree with the author Janouch (2011), the blog is not just that we write an article and waiting for your comments. We have to be active. To the people who write comments, we must act so that we answer their questions, apologize for the errors in the article and also answer on comments. This will give you the required incentives and we encourage more activity and people. Even seemingly insignificant remarks have weight. In terms of language, it is necessary to reflect the blog, how people speak. In the article is not only appropriate to use common words, but make use of the wealth of languages and special terms which customers in the certain area usually know and use.

Potential uses of blogs in marketing by Scott (2010, p. 60):

following up on blogs we can monitor what people think about the company or product,

- engaging in these discussions, sometimes this way can the outset to catch the emerging problems, possibly we can inspire some issues for users of products and services,
- cooperation with bloggers active in the segment,
- influencing debates with founding and writing your own blog.

### **Data and Methodology**

Within the investigated issue it was conducted a survey of responses on questions asked from potential, as well as real customers of various Slovak companies, using modern tools of promotion. The data were collected in September and October 2017 through a questionnaire filled in electronic form. The survey covered 159 respondents who are the customers of Slovak companies, using modern tools of promotion and were influenced to buy just by these instruments. The largest representation of respondents had age group 18-25 years. The oldest respondent was 60 years old.

To evaluate the data collected was used tabular editor Excel from Microsoft. Data were evaluated by the method of charts and descriptive methods.

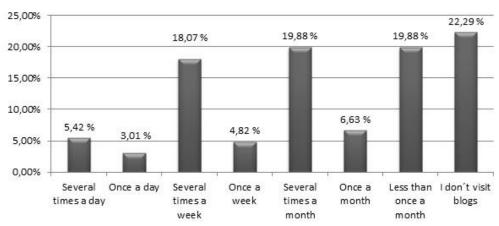
#### Results and discussion

The survey results are presented in the following. Other than those described form is used and a clear form of graphs.

Hypotesis: We assume that there are differences in the rate of interest on blogs, based on gender of surveyed respondents.

To evaluate this survey was used analysis of variance that explains whether there are statistical differences in the perception of and interest on blogs on a group of variables that represents the gender of the respondents. The following table shows that there is at least one mean value which is significantly different. Thus the outcome of this analysis is that the interest on blogs does not differ by gender. This means that interest in blogging may also have

women as well as men, the differences could be significant in subjects about which discusses individual blogs. Chart 1 Frequency of user's blog visits



(Source: own elaboration)

The primary concern was to find out how often the users visit blogs. The results of these findings are shown in the Chart 1. Based on these results it can be said that only 22,29% of the respondents does not visit blogs at all. But what is important is that up to 57,83% of them visit blog monthly in some frequency. 5,42% of the respondents visit blogs several times a day, while a further 3.01% of respondents visit the blog at least once a day. With regard to weekly visits 18.07% of the respondents visit blogs several times per week, while 4.82% of the respondents visit the blog at least once a week. 19,88% of the users visit blogs several times a month. These results indicate that by publishing the content that coincides with the information needs of the respondents, it is possible to generate regular website traffic.

Decision before product purchase

Finding answer related to product

Discovery of new products

Assurance about product purchase

Product purchase

Revaluation of product choice

Strongly agree

Neither agree nor disagree

Disagree

Strongly Disagree

Chart 2 Did blog help you with any of the following?

In addition to the visits frequency the aim was to find out how blogs help respondents in the purchasing process. The results are shown in the Chart 2. As we can see, a blog forms an important part of the buying cycle of the interviewed people. 16,27% of respondents reconsidered their product selection based on a blog together with 22,89% of respondents who chose the option agree. 15,06% of respondents were assured of their decision upon reading a blog and 31,93% of respondents chose the option agree. A blog certainly helped 21,08% of respondents in discovering new products with other 31.93% of respondents who answered agree. The purchase of the product based on a blog was the case of 16.87%, followed by 27.10% of respondents who said agree. The actual purchase based on the blog was the case of 9,64% of respondents, with 22,89% of respondents choosing agree.

40.00%

60,00% 80,00% 100,00%

Table 1 Analysis of variance (the rate of interest on blogs based on gender)

0.00%

20.00%

Variable	Analysis of variance $ \label{eq:marked} \mbox{Marked effects are significant on the level } p < .05000 $									
	SČ effect	SV effect	PČ effect	SČ mistake	SV mistake	PČ mistake	F	P		
The rate of interest on blogs	4,58568	1	4,58568	188,257	157	1,19909	3,824307	0,052289		

(Source: own elaboration)

In the analysis of variance it has significant influence fact, that the data used in the analysis have normal distribution, which shows the subsequent probability graph for the both groups of variables, while the number 1 is male and 2 is the female respondents.

After identifying normality was conducted Levene's test of homogeneity of variance, which is intended to accept or reject the hypothesis about the identity of variance. A very important indicator of the value F, which is the value of the tested statistic and p -value that is compared with the level of the tested statistic. Conducted test shows that the variances are not homogeneous and Levene's test rejects the hypothesis of identity variance. We also confirmed that the value of p = 0.014210 < 0.05.

Table 2 Levene's test (a measure of interest in blogs based on gender)

Variable	Levene's test of homogeneity of variance  Marked effects are significant on the level p < ,05000								
	SČ effect	SV effect	PČ effect	SČ mistake	SV mistake	PČ mistake	F	p	
Interest on blogs	2,11237	1	2,112371	53,9398	157	0,343566	6,14837	0,01421	

(Source: own elaboration)

After making the Levene's test of homogeneity of variance was performed and Kruskal - Wallis ANOVA, which represents a sort of extension of the Mann - Whitney test and the role of this test is to determine whether in the studied sample exists differences in medians, that are statistically significant. Results of Kruskal Wallis ANOVA, that is also called the Wilcox's test double-selected can be viewed below. The results were tested for the level of 0.05 and the table shows that the difference between each pair of medians, which was calculated from the studied sample can only be the result of random selection and thus it can be said that the result is not statistically significant between variables, and there is no connection. This test once again confirmed the interest in blogs on the internet does not differ according to gender.

Table 3 Kruskal-Wallis ANOVA (rate of interest on blogs based on gender)

Dependent: Interest on blogs	Kruskal-Wallis ANOVA based on the order; Interest on blogs  Independent (group) variable: Gender  Kruskal-Wallisův test: H ( 1, N= 159) =2,885528 p =,0894							
	Code	Count of valid	The sum of the order	Average order				
1	1	51	4524,000	88,70588				
2	2	108	8196,000	75,88889				
			527/	75				

(Source: own elaboration)

#### 4. Conclusions

In this article, we looked at a modern tool of promotion because the internet has become a primary marketing battleground between competing companies that try create awareness of their product or service and then sell. A clear advantage of these tools is their broad portfolio, lower costs with greater impact, which can be quickly and easily checked.

Survey showed that interest on blogs do not differentiate by gender.

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