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Organizational career development versus employees’ career needs in Hungary

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University of Pécs, Faculty of Business and Economics, Pécs, Hungary

Abstract
The aim of the study is to prove that individuals still need the help of their employer to develop their career. Therefore, the paper investigates what kind of career support the employees expect from their employers and compare them to what they actually receive from the organization. The focus is on the career development tools applied by the organizations. Using quantitative research methods via an online survey of 1000 Hungarian employees, this study explores the extent of career development technic usage. It explores the solutions which are preferred by the individuals and also demonstrates the tools used by the organizations. Furthermore, the expected and perceived career support from different actors (managers, HR representatives, mentors, colleagues or external consultant) of the career process is measured and the perceived career opportunities are also evaluated. The most frequently applied tools are special work tasks, project work, networking opportunities, training opportunities and performance appraisal as a basis for career planning, as well as mentoring and coaching. The most often used career management solutions are applied mostly by the most employees; therefore, we can conclude that these are the most popular career interventions. All career management solutions were rated as useful by the respondents on average. However, the efficiency order set by respondents is different from the frequency of use. Career management tools that are evaluated most effective by employees are the following: training opportunities, projects to stimulate learning, networking opportunities, special tasks and promotion, succession planning. On average, respondents were partially informed and career prospects partly meet their expectations. Majority of the workers would expect help in developing their careers, but only few of them actually get support. In conclusion the employers should consider to apply certain career management tools more often as they do or they should involve in it more workers. For more effective cooperation, it would be worth to inform better their employees about career opportunities and give them more career support because they would require it.

Keywords
career, career development, training and development, promotion

Introduction
In the new career era, where the boundaryless and protean careers are present, the individuals became primary responsible for their career development. It is reasonable if we consider the changes in the form of employment or the expansion of digital labour market where there are more and more freelancers and flexible working conditions (Nica, 2018; Mitea, 2018; Drugău & Constantin, 2018). Also, for the same reason, employers tend to withdraw from career development process. They are not necessarily partners in managing their employees' careers. They consider it as an unworthy investment. It can be risky because organizations invest energy, time and money in managing the employees’ career but they can decide anytime to leave the organization. Furthermore, individuals can have irrelevant expectations from the system which, for this reason, cannot satisfy them. It can cause a problem, too, if the managers are not engaged enough. They will not take it seriously and will not help the employees in their career activities.
In spite of some disadvantages, it is more beneficial for organizations to deal with career planning and management activities. Numerous benefits can be identified for the employer and also for the employees. It is useful for the organization because it can increase employee motivation, performance and thus the efficiency of the organization. It requires shorter time to resolve the vacancies, helps with succession planning, identifies employees who can become potential leaders later, and provides the opportunity for all employees to identify their career goals. (László, Sipos and Slavić (2018) also argue in their study that the two parties need to co-operate with each other to achieve their aims.)

The aim of the study is to prove that individuals still need the help of their employer to develop their career. Therefore, the paper investigates what kind of career support the employees expect from their employers and compare them what they actually receive from the organization. The focus is on the career development tools applied by the organizations (e.g. training and development opportunities, mentoring, coaching, formal career plan, and career consultation). Using quantitative research methods via an online survey of 1000 Hungarian employees, this study explores the extent of career development technic usage. It explores the solutions which are preferred by the individuals and also demonstrates the tools used by the organizations. Furthermore, the expected and perceived career support from different actors (managers, HR representatives, mentors, colleagues or external consultant) of the career process is measured and the perceived career opportunities are also evaluated.

In conclusion, the study provides an overview about employees’ career needs and demonstrates their evaluation about the organizational career development activities.

1. Organizational career management and its tools

In this subchapter the content of organizational career management will be clarified and its possible tools will be presented.

1.1. Organizational career management

Based on Hall & Associates (1986) and Leibowitz Farren and Kaye (1986) career management includes personal competencies and organizational actions as well as structures that enable and guide individuals to acquire the necessary skills, knowledge, and attitudes to achieve their personal and career goals and meet the requirements of the work environment. The individual and the organization prepare plans, then refine, implement and monitor them within this process. (Hall & Associates, 1986; Leibowitz et al. 1986 – in: Creed & Hood, 2009)

Based on Koncz (2002, 2013), organizational career management can be interpreted as the supported, formalized organizational career development of the organization's employees. The target group might be all of the employees or just a specific group. The definition suggests that this is a job-related career activity and it is not necessary to include the whole workforce of the organization.

Gottfredson (2005) believes that organizational career management activities are primarily for the benefit of the organization, and secondly, for the career goals of their employees. In addition, some employers are committed to help their employees to solve their personal, family problems because they understood that these private problems can easily distract their employees from work and undermine good performance. (Gottfredson, 2005) This can be interpreted so that employers have to consider the whole person because privacy can have an impact on work and career decisions.

1.2. Organizational career management tools

Employers can use a variety of career management solutions to support their employees' careers, such as career counselling, career planning, various training development opportunities, mentoring, coaching or succession planning (Bernes & Magnusson, 1996; Baruch, 2008). In the last period we can highlight the following researches which investigated career development interventions:

Baruch & Peiperl (2000) studied 17 career management practices at 194 UK organizations. The five most commonly used solutions were postings regarding internal job openings, formal education as part of career development, performance appraisal as a basis for career planning, career counselling by direct supervisor and lateral moves to create cross-functional experience.

The results of the 2008-10 Cranet Round were reviewed by Berber & Slavic (2014). The use of career management techniques shows average low
frequencies based on the results of the survey. Participation in project teams was applied to the greatest extent by European participants. This was followed by special tasks to stimulate learning/training at work. The third most common solution was involvement in cross-organizational/disciplinary/functional tasks. Mentoring and networking were the following in the ranking.

Lewis & Arnold (2012) conducted a survey among leaders of commercial organizations in the UK. They found that the most popular solutions were advertising internal job opportunities, involvement, personal development plans and competence development. They found that basic techniques - one of the CM tools category from Baruch & Peiperl (2000) - are preferred by organizations, because they are simple to use and do not require too much effort on the part of the organization. (Lewis & Arnold, 2012)

Finally, the research by Madagamage, Perera and Thalgaspitiya (2018) is presented. The authors examined career management practices at listed companies in Sri Lanka. A total of 19 KM tools were tested, 14 were taken from Budhwar & Baruch (2003) survey. Based on their results, the top five items were: performance appraisal as a basis for career planning, formal development as part of career development, postings regarding internal job openings, special work assignments to career development and formal education as a part of career development.

Summarizing previous research results, the most common career development solutions in the surveyed organizations were solutions such as training-development solutions, internal job opening practices, career consulting, performance appraisal as part of career development, project work and special assignments.

Related to organizational career management practice, it is important to mention that the emergence of new career concepts has also affected the type of career development tools applied. While traditional formal solutions were used earlier, according to Baruch (2003) new innovative interventions have spread with new career concepts. Employers need to take into account the fact that they often have to manage their employees’ careers beyond formal organizational boundaries or they need to rethink their relationship with employees. Finally, they also have to consider that employability is more important for workers today (not long-term employability), therefore, those career development solutions should be used which support this new need. (Baruch, 2003)

De Vos & Cambre (2016) confirms the previous opinion, since the authors see that in recent years, organizations have been using rather supportive and developer KM solutions (according to Clarke (2013), e.g.: coaching, career planning workshops, self-assessment exercises) instead of traditional top-down CM solutions (based on Hamori et al. (2011) e.g.: rigid career ladders, potential survey, promotional routes). Furthermore, Szabó, Slavić and Berber (2019) proved in the case of organizations from Central and Eastern Europe that coaching has positive impact on organizational performance. Namely, they showed that higher level of the usage of coaching for career management in a company is positively related to the level of productivity and negatively related to the level of staff turnover.

2. Methodology of the research

1,000 people were interviewed using an online questionnaire in the frame of the empirical research. The respondents are full and part time employees in the private sector. This paper analyses the answers of the following questions: use and usefulness of career management tools, received and expected career support, and assessment of career opportunities and information in the workplace. Data were analyses with SPSS software. Mainly frequency queries, some cross table and correlation analyses have been carried out yet, as the research have been conducted recently, further detailed analyses are planned later.

2.1. Basic characteristics of the sample

The sample is representative by age, gender, qualification and residence. The following figure shows basic demographic data. The majority of the respondents are men (64%), the average age is 42 years. Most employees (75%) have an intermediate level of education.
94% of the surveyed people are full-time employees. In terms of the sector, most work in the following five categories: manufactured products; other services; wholesale and retail trade services, repair services of motor vehicles and motorcycles; Constructions and constructions works and Information and communication services. The following figure contains additional basic information about the workplace.

The majority of respondents work as subordinates (83%). Most of them are employees of small and medium-sized enterprises (60%). More than the half (56%) of employers have Hungarian owners.

After presenting the basic features of the sample, questions relevant to the topic of the study will be evaluated in the next subchapter.

3. Results of the research

3.1. Organizational career management from the employee’s perspective

In this subchapter results related to organizational career management practice are presented, which were surveyed from the perspective of employees. The respondents had to indicate how many times applied each of the listed career management solutions in the last year. After filtering out the outliers, the table below shows the number of times the tool was used by employees, and the number of workers who used the technique as a whole, and the average usage rate among employees. A total of 18 career development solutions were surveyed and it was also possible for the respondents to mark other options.

3.1.1. Frequency of career management tools’ application

According to results (see in Table 1), the most frequently applied tool is special work tasks, respondents used it 4626 times, totally 440 participants performed this task, which is 44% of all respondents. In other words, 440 employees have participated in this career development solution a total of 4626 times. If we compare the frequency of use with the people who benefited from this solution, on average, one person did a special job ten times (the average: 10.51) last year.

Very common techniques were also project work (2928), networking opportunities (2045),
training opportunities (1707) and performance appraisal as a basis for career planning (1425), as well as mentoring and coaching (1388). Approximately one third of the respondents used these solutions, except for training opportunities, where this ratio reaches 39%, making it the second most popular technique in terms of the proportion of users. In addition, only a fifth of the respondents (20%) could participate in mentoring and coaching, but they often did it in the last year, as shown by the average use indicator (6.9).

### Table 1 Frequency of career management tools’ application

<table>
<thead>
<tr>
<th>Career management tool</th>
<th>Number of usage</th>
<th>Number of users</th>
<th>Portion of users (%)</th>
<th>Average usage per user (occasion/person)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Special tasks</td>
<td>4626</td>
<td>440</td>
<td>44%</td>
<td>10.51</td>
</tr>
<tr>
<td>2. Project work</td>
<td>2928</td>
<td>316</td>
<td>32%</td>
<td>9.27</td>
</tr>
<tr>
<td>3. Networking opportunities</td>
<td>2045</td>
<td>298</td>
<td>30%</td>
<td>6.86</td>
</tr>
<tr>
<td>4. Training opportunities</td>
<td>1707</td>
<td>394</td>
<td>39%</td>
<td>4.33</td>
</tr>
<tr>
<td>5. Performance appraisal as a basis for career planning</td>
<td>1425</td>
<td>279</td>
<td>28%</td>
<td>5.11</td>
</tr>
<tr>
<td>6. Mentoring, coaching</td>
<td>1388</td>
<td>201</td>
<td>20%</td>
<td>6.9</td>
</tr>
<tr>
<td>7. Projects to stimulate learning</td>
<td>1317</td>
<td>250</td>
<td>25%</td>
<td>5.27</td>
</tr>
<tr>
<td>8. Career workshops, information materials</td>
<td>1289</td>
<td>179</td>
<td>18%</td>
<td>7.2</td>
</tr>
<tr>
<td>9. Computer based packages/ e-learning</td>
<td>1250</td>
<td>251</td>
<td>25%</td>
<td>4.98</td>
</tr>
<tr>
<td>10. Career counselling</td>
<td>878</td>
<td>162</td>
<td>16%</td>
<td>5.42</td>
</tr>
<tr>
<td>11. Job rotation</td>
<td>694</td>
<td>179</td>
<td>18%</td>
<td>3.88</td>
</tr>
<tr>
<td>12. Lateral movement in the organization</td>
<td>567</td>
<td>101</td>
<td>10%</td>
<td>5.61</td>
</tr>
<tr>
<td>13. Talent program</td>
<td>538</td>
<td>98</td>
<td>10%</td>
<td>5.49</td>
</tr>
<tr>
<td>14. Promotion, succession planning</td>
<td>451</td>
<td>198</td>
<td>20%</td>
<td>2.28</td>
</tr>
<tr>
<td>15. Development centre</td>
<td>413</td>
<td>61</td>
<td>6%</td>
<td>6.77</td>
</tr>
<tr>
<td>16. Career plan</td>
<td>338</td>
<td>129</td>
<td>13%</td>
<td>2.62</td>
</tr>
<tr>
<td>17. International work assignments</td>
<td>324</td>
<td>116</td>
<td>12%</td>
<td>2.8</td>
</tr>
<tr>
<td>18. Retirement preparation program</td>
<td>158</td>
<td>71</td>
<td>7%</td>
<td>2.23</td>
</tr>
</tbody>
</table>

Source: The author

Practices supporting career development are in the middle of the list such as projects to stimulate learning (1317), career workshops and information materials (1289), computer based packages / e-learning (1250), career counselling (878), job rotation (694), lateral movement in the organization (567) and talent program (538). Among the above listed tools projects to stimulate learning and computer based packages / e-learning solutions are used by the majority of respondents (25%), the fourth. Almost a fifth of respondents participated in career workshops, received career information material (18%) or was involved in job rotation (18%) in the last year.

The least applied career solutions are at the end of the list like promotion, succession planning (451), development centre (413), career plan (338), international work assignments (324) or retirement preparation programs (158). One fifth of the respondents (20%) were promoted. 13% had a career plan and 12% took part in international assignment. Among the recipients of career support solutions, the least were involved in development centre (6%) or retirement preparation program (7%). It is interesting that considering all the tools, the average use is the second lowest in the case of promotions (2.28), which means that although more people have been promoted, this happened twice on average. This is not surprising considering the flatter organizational structures and limited advancement opportunities. It is also interesting that, although only 6% of the respondents were part of the development centre, but they often participated in this solution (6.21). The age distribution of participants in retirement preparation programs (7%) is quite variable, not necessarily only the older colleagues are involved in it. Only 11% of 54-year-olds participated in such a program.

Overall, it can be seen that the surveyed career management tools were used by a maximum of 44% of the respondents. The number of occasions, how often they were used, varies between two and ten by users. Which means that the application of some solutions is more common for one person, while others is lower, which may depend on how simple, costly, time-consuming, energy-intensive or efficient the usage of a particular solution is.
3.1.2. Effectiveness of career management tools

In terms of efficiency, the results are shown in the following table.

<table>
<thead>
<tr>
<th>Career management tool</th>
<th>Usefulness*</th>
<th>Portion of users (%)</th>
<th>Usage ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Training opportunities</td>
<td>4.34</td>
<td>39%</td>
<td>4.</td>
</tr>
<tr>
<td>4. Special tasks</td>
<td>4.06</td>
<td>44%</td>
<td>1.</td>
</tr>
<tr>
<td>5. Promotion, succession planning</td>
<td>4.02</td>
<td>20%</td>
<td>14.</td>
</tr>
<tr>
<td>7. Project work</td>
<td>3.92</td>
<td>32%</td>
<td>2.</td>
</tr>
<tr>
<td>10. International work assignments</td>
<td>3.86</td>
<td>12%</td>
<td>17.</td>
</tr>
<tr>
<td>12. Performance appraisal as a basis for career planning</td>
<td>3.86</td>
<td>28%</td>
<td>5.</td>
</tr>
<tr>
<td>17. Job rotation</td>
<td>3.62</td>
<td>18%</td>
<td>11.</td>
</tr>
<tr>
<td>18. Lateral movement in the organization</td>
<td>3.57</td>
<td>10%</td>
<td>12.</td>
</tr>
</tbody>
</table>

Source: The author

The respondents had to evaluate each career practice on a scale of 1 to 5, to see how useful they were to promote their careers. All career management solutions were rated as useful by the respondents on average. Training opportunities were rated by employees as the most useful tool (an average of 4.34), which is the 4th most commonly used career management instrument as shown in the previous table. The first five most useful techniques include also the followings: projects to stimulate learning (4.12), networking opportunities (4.07), special tasks (4.06) and promotion, succession planning (4.02). Among them, training opportunities and special tasks were available to many (39% and 44% of respondents), as could be seen previously in the proportion of users. Interestingly, the promotional practice was rated the 5th most valuable technique by the respondents, although few benefitted from it or rarely applied by employers, as it was described before. This may also be explained by the fact that many see the possibility to develop their careers in upward movement in the hierarchy, but it is given to a few workers due to the reasons already mentioned.

There are career development solutions in the middle of the list that were ranked ahead in terms of frequency of use as could be seen in the previous table, such as project work (3.92), mentoring and coaching (3.86) and performance appraisal as a basis for career planning. Also, there are tools in the middle field that were listed at the end of the frequency ranking, such as development centre (3.91), talent program (3.90), or international work assignments (3.86), which may also indicate that organizations could use these solutions more often.

In the last third of the list, there are career management techniques that reach less than a fifth of employees and regarding the frequency of use, they are in the middle or at the end of the frequency table. There is an exception, career workshops and information materials, which are measured as the 8th most used tool.

3.1.3. Career opportunities in the workplace

The following figure presents the degree of information the employees have in connection with their career opportunities. The majority of employees think that they are relatively well informed about their career opportunities at work (21% + 16%). One third of them see (33%) that they have only partial information, while slightly less than one third (30%) are less or not notified at all. On average, respondents were partially informed (3.08).
The respondents had to evaluate their career opportunities on a scale of 1 to 5 in their workplace. The results are shown in the diagram below.

The majority (36%) partly considered their career options to be in line with their expectations. One third of respondents are less or not at all satisfied with their opportunities, while another third of them evaluate the alternatives as more or fully acceptable. On average, career prospects partly meet the expectations of the respondents (3.03).

According to cross-table analysis, you can see that those who are more informed about their career prospects evaluate their career opportunities at least as medium or better. While those who are less or not at all informed, they consider their career options to be medium or worse. Chi-square test confirmed that there is a correlation between evaluation of information and career opportunities, consequently employers should pay more attention to informing their employees.

3.1.4. Expected and received career support

Finally, the expected and actual career supports were evaluated. 53% of the workers would expect help in developing their careers, but only 21% of them actually get support. The respondents had to distribute exactly 100 points between the various actors, depending on the degree of support they expect to advance their careers, and actually how much help they actually receive. The results are shown in the figure below.

In the case of managers (direct and top) and HR colleagues, it can be seen that some more help (46%; 22%; and 7%) would be expected for employees than they actually receive (44%; 17%...
and 5%). Support from colleagues is also significant (23%), but respondents would require fewer (14%). They would probably expect more assistance from the three character mentioned above. Mentors should also play a somewhat smaller role (7%) than they have now (8%). Overall, it is found that employees receive support mostly from those to manage their career from whom they expect, but in some cases, such as managers and HR colleagues, workers would require a little more assistance. The participants would like to get some help even from outside experts (4%).

4. Limitations

As for the answers, it should be noted that this is the assessment and opinion of the employees. It reflects their own experiences and knowledge, so the results should be treated and interpreted accordingly. It is possible that respondents may have participated in other career management solutions than they selected, or more often or less often. In addition, they may find a technique to be less useful but actually it may be an effective practice. The lower rating may be due to their poor knowledge or even their bad experience with the tool. The judgment of career prospects or received career support can be very subjective, too, but it is worth considering the opinions, because the employees think and act on the basis of them. Therefore, if employers find the assessment of the employees correct, they should apply the relevant career solution more often. If they think it is incorrect then they should inform their workers better about the content, benefits and potential drawbacks of each technique so that the employees get a more realistic picture of career tools. All in all, the results can be considered useful feedback for managers or HR professionals.

Summary and conclusion

The most frequently applied tools in Hungary are special work tasks, project work, networking opportunities, training opportunities and performance appraisal as a basis for career planning, as well as mentoring and coaching. The most often used career management solutions are applied mostly by the most employees therefore we can conclude that these are the most popular career interventions. These results are in line what earlier was mentioned in the literature part of the study. These tools can be considered as rather supportive and developer technics. Furthermore they show similarities with the results of previous researches as can be seen in the following table.

<table>
<thead>
<tr>
<th>Most common career management tools</th>
<th>According to earlier studies</th>
<th>According to the empirical research</th>
</tr>
</thead>
<tbody>
<tr>
<td>special assignments</td>
<td>special work tasks</td>
<td></td>
</tr>
<tr>
<td>project work</td>
<td>project work</td>
<td></td>
</tr>
<tr>
<td>internal job opening practices</td>
<td>networking opportunities</td>
<td></td>
</tr>
<tr>
<td>training-development solutions</td>
<td>training opportunities</td>
<td></td>
</tr>
<tr>
<td>performance appraisal as part of career development</td>
<td>performance appraisal as a basis for career planning</td>
<td></td>
</tr>
<tr>
<td>career consulting</td>
<td>mentoring and coaching</td>
<td></td>
</tr>
</tbody>
</table>

Source: The author

Overall, it can be seen that the surveyed career management tools were used by a maximum of 44% of the respondents. The number of occasions, how often they were used, varies between two and ten by users, which means that the application of some solutions is more common for one person, while others is lower, which may depend on how simple, costly, time-consuming, energy-intensive or efficient the usage of a particular solution is.

All career management solutions were rated as useful by the respondents on average. However, the efficiency order set by respondents is different from the frequency of use. Career management tools that are evaluated most effective by employees are the following: training opportunities, projects to stimulate learning, networking opportunities, special tasks and promotion, succession planning.

On average, respondents were partially informed and career prospects partly meet their expectations. All in all those who are more informed about their career prospects evaluate their career opportunities rather better. While those who are less or not at all informed, they consider their career options to be rather worse. Consequently employers should pay more
attention to informing their employees. As for career support, majority of the workers would expect help in developing their careers, but only few of them actually get support. It is found that employees receive support mostly from those to manage their career from whom they expect, but in some cases, such as managers and HR colleagues, workers would require a little more assistance.

In conclusion, employers should consider applying certain career management tools more often as they do or they should involve in it more workers. For more effective cooperation, it would be worth to inform better their employees about career opportunities and give them more career support because they would require it.

References


László, G., Sipos, N., & Slavić, A. (2018). The role of trade unions in the HRM of Hungarian and Serbian organizations. Analı̇ Ekonomskı̇k fakulı̇tetı̇ u Subotıcı̇, (40), 67-79. [https://doi.org/10.5937/AnEkSub1840067L]


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Strategic communication concept implemented through the corporate political activities – suggested strategy modeling

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Abstract
The concept of strategic communication is actual in all spheres of contemporary social and business life. The paper analyzes the concept, structure, and forms of strategic communication based on a wide base of scientific and professional literature. Paper consider correlation between strategic communication, integrated business communication, and corporate communications. A particular overview is devoted to corporative political activities as part of strategic communication. In the closing section of the work, a model of planning and implementation of corporate political activities based on the STAP model of the lobbying strategy with the development of individual communication tactics is presented. The basis of the communication matrix for different groups of the public are proposed through various tactics applicable in the framework of corporative political activities. Overall contributes to defining the notion of strategic communication as well as to the place and role of corporate political activities as a special form of strategic communication.

Keywords
Strategic communication, corporative communications, corporative political activities, lobbying, integrated business communication.

Introduction
Strategic communication is a part of social activities in the growing and development phase. Immaturity of phenomena contributes to its undefined and sometimes unclear understanding. (Hallahan, Holtzhausen, Van Ruler, Verčić & Sriramesh, 2007, p. 28). Dynamic of development of phenomena contribute to a conclusion that not all communications are strategic, as well as that not all strategic communications are conducted against positive goals (Holtzhausen & Zerfass, 2015).

Defining of strategic communication is a contemporary process. By Oxford Bibliographies (OB, 2018) Strategic communication (SC) is a term used to denote the higher-level concerns behind communicative efforts by organizations to advance organizational mission. Strategic communication as communication aligned with the company’s overall strategy, to enhance its strategic positioning (Argenti, Howell & Beck, 2005). Contemporary understanding of strategic communication is strongly based on definition suggested by Hallahan and associates, where strategic communication, in its broadest sense, could be understood as “communicating purposefully to advance (the organization’s) mission” and “implies that people will be engaged in deliberate communication practice on behalf of organizations, causes, and social movements” (Hallahan et al., 2007, p. 4).

1. When is communication strategic?
We could agree that communication is strategic when it is completely consistent with a corporation’s mission, vision, values and is able to
enhance the strategic positioning and competitiveness of the organization (FTL, 2018). Thorson (2013) suggests that strategic communication should integrate all those communications that are associated with organizational goals and strategies, whether SC has focus on presenting and promoting goals and strategies or concentrated on driving its development. In other words, for some, strategy precedes strategic communication; for others, strategic communication also constitutes a strategy.

Holtzhausen emphasizes that strategic communication focusing on corporative and economy categories, suggesting that communicative entities “cover the full spectrum of economic and social sectors, such as trade and industry, politics, non-profit and government agencies, activist groups, and even celebrities in the sports and entertainment industries” (2008, p. 4849). There, we could find an indication that strategic communication is wider and broader phenomenon than marketing and public relation, or even integrated communication. In fact, strategic communication covers all listed, but also more activities from spectra of inner and out communications, which contributes to enhancing of organization position and mission fulfillment. In search of a more comprehensive, single definition of Holtzhausen and Zerfass (2013, p. 74) proposed: “Strategic communication is the practice of deliberate and purposive communication that a communication agent enacts in the public sphere on behalf of a communicative entity to reach set goals”.

It could be said, that strategic communication is the overall communication efforts of the organization to achieve maximum possible fulfillment of their mission thought most effective communication with all their target publics.

The role of strategic communication is to ensure information transfer and creation of relation upon them among of all public segments, which are in correlation with the organization. This perspective includes the concepts of strategic message design, management of culture, and total quality management (Holtzhausen, 2002).

1.1. Determination of Strategic Communication

According to Paul (2011, p. 7), strategic communication in attending to be successful must include the communicative content and signals of actions, images, and policies. He suggests an understanding of the term as:

- enterprise level strategic communication,
- strategic communication planning, integration, and synchronization processes,
- communication strategies and themes,
- communication, information, and influence capabilities and
- knowledge of human dynamics and analysis or assessment capabilities.

Hallahan (Hallahan et al., 2007, p. 9-11) suggests aspects that would to be implemented in communication strategy designing:

- The ability of communicators to differentiate between traditional communication channels and to choose the most effective ones.
- Important changes in public communication based on technology and by media economics.
- Usage of expanding variety of methods to influence on relationships and attitudes toward organizations.
- Strategic communication recognizes purposeful influence as the fundamental goal of communications by organizations.

According to van Ruler (van Ruler, 2018) strategic communication as the management of the amalgam of communication processes in the context of continuous strategy development, and therefore include the presentation, promotion, and realization aspects as well as the building and rebuilding aspects of strategy and see this as a continuous loop. Strategic communication follows strategy, and strategic communication is the aid with which to attain set goals by influencing the public sphere to accept these set goals.

Hallahan (2004) identified six communication specialties in organizations: management marketing, technical communication, political communication, public relations and information/social marketing campaigns. All listed areas of communication are in the pool of corporative communications and have a crucial impact on the company's mission fulfillment. The conclusion is that corporative communication is a structural part, or even more ‘spine’ of the company's strategic communication efforts.

As the main purpose of strategic communication Zerfass and Viertmann (Zerfass & Viertmann, 2017) suggest:
1. **Enabling operations.** Strategic communication raises publicity, attention, customer preferences, and employee commitment and thus keeps the organization running and ensures immediate success in terms of primary objectives.

2. **Building intangible assets.** Strategic communication builds a reputation, brands, and corporate culture and, thus, creates the immaterial assets that are the basis for sustainable long-term success.

3. **Ensuring flexibility.** Strategic communication builds relationships, trust, and legitimacy and, thus, secures the organization's license to operate and increases its room for maneuver.

4. **Adjusting strategy.** Strategic communication monitors the organization's environment, thus increasing the reflective capacities of strategic management decisions. This secures thought leadership, innovation potential, and crisis resilience.

As an overall conclusion of understanding of strategic communication in a role of business policy, organizational structure and mission fulfillment support, it could be said that SC belongs to the top strategic priorities for organizations, which strive to maximize its results.

2. **Strategic communication and integrated business communication**

Global economy disbalance indicates necessity for integrated marketing approach (Grubor, 2014), but also other integrated relations (Miller, 2014), such imply existing of integrated marketing communication. It is important to emphasize that strategic communication and integrated marketing communication have certain differences. Namely, strategic communication differs from integrated communication because its focus is on how an organization communicates across organizational endeavors. It is more likely that ‘integrated business communication as a synergy of marketing and public relation activities of an organization towards internal and external public' (Filipović & Kostić, 2011, p. 29), and on this way is closely related with strategic communication concept, but it is not very same. The main emphasis distinction is on the strategic application of communication, and how particular organization acting as a social actor to advance its mission. (Hallahan et al., 2007).

Furthermore, successful corporation with a strong reputation as a part of the genesis of integrated business communication, and an overall sense, part of strategic communication, is not just production and revenue orientated organization, but also recognized as a social responsible (Smith & Kubala, 2018) or a ‘good neighbour’ and member of society. Namely, in research conducted regarding the connection of corporative reputation and corporative efficiency, Vlastelica et al. (Vlastelica, Kostić-Stanković & Cicvarić Kostić, 2017, p.158) point to the possible divergence of ‘hard’ and ‘soft’ company business dimension:

1. **Hard business dimension:**
   - Business performance (profitable, market leader, customer orientation, regulation obey)
   - Working environment (desirable employer, professional and quality management, quality employees, sustainable job)
   - Production and services (quality of product/services, innovative, security, and safety, a balance of price and quality).

2. **Soft business dimension:**
   - Social responsibility (philanthropy, donation, environmentally friendly, local community responsibility, contribution to wide society).
   - Marketing (intensity, creativity, responsibility, informative communication).
   - Public relation (media relation, event organization, Internet communication, quality internal communication).

According to the given perspective of corporative social dimensions, it is clear that companies which attempt to develop successful and fruitful strategic communication, have to plan, implement and develop overall strategic corporative communication. In other words, a company that strives to achieve highest business results should understand and implement the concept of socially responsible business (Grubor, 2013).

Strategic corporative communication (in short, strategic communication) is not just integrated marketing communication, because it is also orientated towards the community as a social actor, corporative citizen, which indicates a much
wider public policy, organizational and task-related connotations than integrated business communication (IBC). The suggestion is that IBC is a part of overall corporative communication, which is identified as SC implemented on the corporative level, and that volume of correlation between those two depends of strategic orientations and ambitions of an organization. Namely, a difference between IBC and SC is in particular orientation of organization and its ambition to introduce their own set of goals as an issue in wider public policies arena. Through the scope of implemented activities, SC cover a wide area of social, political and administrative actions (Figure 1).

![Figure 1](image_url)

Thus, strategic communication covers a wide range of complex and strategically important communications: public affairs, advocacy, think-thank group's relations, communication with other expert bodies, political activities, public policy engagement, activism, contribution to public diplomacy, etc. In short, strategic communication has a catalytic role in interference of companies' integrated business communication with the wide social environment.

2.1. Strategic communication and political influence

We could agree with Hallahan (Hallahan et al., 2007, p. 24) that central issue of strategic communication is the idea of influence or “the power or capacity of causing an effect in indirect or intangible ways”.

The ability to use corporate communication management methods allows “representatives of functional systems and special interest groups” to gain access to media and thus to gain political influence. Although the “actors of civil society” have less power than politicians and lobbyists, they too have the opportunity and do use strategic communication to affect the debate in the public sphere (Habermas, 2006, p. 15). Based upon all of the above, it could be suggested that corporative communication trough corporative political activities contribute toward fulfilment of the organizational mission. In this way, corporative political activities as a part of strategic communication attend to improve organizational mission achievement by conducting communication activities in interaction with political, lawmakers and other governmental or international institutions.

2.1.1. Corporative political activities as a part of the company's strategic communication

The contemporary business environment is complex and consists of market and nonmarket components (Baron, 1995; Boddewyn, 2003; Doh, Lawton, McGuire, & Rajwani, 2013). Business environment indicates not just economic but social and political role of the company (Donaldson & Preston, 1995; Wicks et al., 1994). Corporative Political Activity (CPA) is a part of a nonmarket strategy by which companies tend to achieve a corporative advantage in communication toward a wide public audience.

Furthermore, CPA significantly contributes toward improvements of the firm's position and overall company strength (Bonardi, Holburn, & Bergh, 2006; Lawton et al., 2013; Schuler, Rehbein & Cramer, 2002). More closely, CPA is recognized as a part of communication strategy for facilitating the development of trust between company and policymakers, mostly government institutions (Liedong, Gobadian, Rajwani, & O'Regan, 2014). Companies use different tactics for influence on government: through acts of political action committees (PAC) contributions, lobbying, and engaging in political support activism (e.g. Doh et al., 2012). Some research indicates that CPA has conditionally influence on a firm's efficiency (Hadani, Bonardi, Dahan, 2017), and other suggest that CPA is recognized as a nonmarket strategy that 'attempts to shape government policy in ways favorable to the firm' (Hillman, Keim, & Schuler, 2004, p. 838).

In the scope of communication strategy, CPA is recognized as company's information related strategy which aims ‘to affect public policy by...’
providing specific information about preferences for policy or policy positions to policy-makers and may involve providing information on the costs and benefits of different issue outcomes' (Hillman & Hitt, 1999, p. 834). Variety of CPA activities, areas, and strategic approach are wide and vivid: electoral campaigns, policy development, law and regulation contribution, expertise involvement or even entrance in foreign policy shaping (Mitrović, 2017, pp. 31-105).

In short, CPA is an approach by which government institutions, lawmakers, and regulatory proposition agencies could recognize ability or skills of firms in policy issues. Influence of CPA contains two dimensions of trust: integrity and policy ability/skill. CPA has implemented a form of strategic interest communication, usually recognized as lobbying or advocacy.

2.1.2. Structuring the CPA strategy

As key elements of CPA as an implemented form of lobbying are information, credibility, appropriate communication, ethics and legally based relations (Mitrović, 2017b).

As a possible base for designing of effective CPA strategy as a lobbying strategy, it could be taken a pattern of STAP (Static, Tangible, Action and Pressure) strategy development model (Mitrović, 2017c). Suggested STAP model of CPA designing is proposed upon on a result of research of numerous implemented lobbying strategies in different business areas (market and nonmarket) as well as in different social environment (cultural, regional, international) (Mitrović, 2017a, pp. 31-61). The suggested model consists of listed pillows, elaborated as follow:

Static - this phase considers analysis of all existing, contemporary, or ‘given’ parameters of all relevant political, business, cultural and marketing aspects of the environment in which our organization intends to have influence. Some of them are laws, state and institutional strategies, organizational procedures, customs, ethics, tradition, cultural environment, good and bad practice, trends. All those external parameters should be analysed though the perspective of an organization’s aims (organizational, strategic, business, etc.). The aim of this phase is to build an analytical approach for defining our goals and may achieve them through the CPA strategy. The purpose of this phase is to connect all-important stakeholders, bearing in mind stakeholder theory approach (Buchholz & Rosenthal, 2004; Driscoll & Starik, 2004; Hendry, 2003; Mahon, 2002), and project environment with goals of our lobbying project. The most effective approach is to make detailed analyses of all stakeholders and to try clarifying the interconnections, correlations and possible future trend in the area that represents our interest arena. The task that has to be accomplished in this phase is to connect the concerted goal of our organization with important facts that have an influence on our organizational success. In addition, the assignment is to create links between (our) organizational and goals of (our) lobbying campaign. This achievement is very important for evaluating phase of strategy implementation, as a measured result. In this way, we develop an instrument for measuring strategy efficiency. Final product of the Static phase should clarify stakeholders (number, influence strength, organizational form, etc.), goals (of lobbying campaign), characteristics of social environment (laws, bureaucracy structure, procedures of communication, costumes, ethics, and cultural habits), and perspective of future trends (policies, trends, strategies, analyses conclusions and forecast of future needs).

Tangible – the intention to recognize and systematize stakeholders and their inter-relations. By putting all the stakeholders and recognized static parameters in an actual dynamic correlational form, static variables became tangible, with a shape and interaction. The intensity, polarity and publicity dimensions show the interaction of stakeholders. Intensity shows how strong relation is regarding our subject from the stakeholder’s point of view. Polarity implies a positive or negative stakeholder’s attitude towards our interest. Public exposures of CPA lobbying processes declare how non-actors could notice lobbying activities. Assessment approach is developed on Anastasiadis’s (2006) theory of accessibility of a lobbying process by non-participations. He recognizes four possible relations between lobbying process subjects and non-participations: 1. Public and transparent – 'Seeing & Hearing' mode; 2. Public, but opaque – 'Blind' mode; 3. Transparent, but private – 'Deaf' mode; 4. Opaque and private – 'Blind & Deaf' mode.

Placing all these impact factors (intensity, polarity, and publicity) in the same three-dimensional coordination system, we can design a "Power Map" (PM) (figure 2). This is a basic point for developing the communication strategy. The conclusions produced by analysing
correlations, impacts, value orientations, as well as previous experience of public expressions on our target issues are used in creation of an appropriate communication strategy. Bearing in mind that the final goal is to inform, influence, and to build alliances, the communication methods have to be considered carefully to avoid misunderstandings.

**Figure 2** Power Map example: subject 1 has strong support, public, and transparency position toward lobbying issue; Subject 2 has moderate negative, and nonparticipants in the process couldn't see a process of lobbying (they are ‘blind’ for the process)

*Source: The author*

### Table 1 Proposal of communication tactics and activities

<table>
<thead>
<tr>
<th>Communication strategy</th>
<th>Mass</th>
<th>Group</th>
<th>Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target audience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special media reports, magazines articles - Internet portals and social networks - Video production and broadcasting - Publishing of books and collection of papers.</td>
<td>- Discussion in boards and committees - Work in experts and working groups - Presenting of the initiative in specialized bodies. - Presenting an initiative to the third parties.</td>
<td>- Meetings with decision-makers in legislative bodies. - Meetings with the authorities supporters of the initiative. - Meetings with leaders of third parties</td>
<td></td>
</tr>
<tr>
<td>Segmented</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- The expert shows and specialized TV programs. - Internet portals &amp; Blogs of related and specialized organizations.</td>
<td>- Expert analysis submission to the decision-maker’s institutions. - Thematic periodicals about issue. - Special events</td>
<td>- E-mail. - Greeting cards, invitations to special events. - Work in teams for support of political initiatives representatives</td>
<td></td>
</tr>
<tr>
<td>Personalized</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Direct mail to the third parties. - Promo stands - 'Door to door' survey - Launching the petitions.</td>
<td>- Cooper. with the supporters - Cooper. with external experts - Guerrilla media and Internet activities</td>
<td>- VIP special events invitations - Support of candidates - Engagement of celebrities</td>
<td></td>
</tr>
</tbody>
</table>

*Source: The author*

### Conclusion

Strategic communication is the product of the actual needs of organizational entities to achieve a comprehensive and synergistic relationship with all segments of the public in their surroundings, in order to achieve maximum support for the accomplishment of their mission.

Strategic communication as a concept goes beyond the ontological but also the epistemological framework of integrated business communication, primarily in the segment of subjects in the process of communication, their genesis and understanding. Thus, strategic communication becomes synonymous with comprehensive corporate communication. A
particular form of strategic correlation is corporate political activities. Through it, companies have an impact on a non-market segment of a society that is of high priority in relation to its business interests. The significance of these entities is their ability to influence laws and regulations on startup companies. Through a systemically organized approach to stakeholders representing decision-makers and legislators, the company realizes its interests and affirms itself as an active entity in the political public sphere. In process of planning the corporate political activity, it is useful to use planning analytical methods, which are systematized in the models of planning, as proposed and elaborated STAP model is.\textsuperscript{SM}

References


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Strategic personnel management: context of retirement age reform in Russia

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Abstract
Since January 2019, retirement age in the Russian Federation will be gradually raised. Over the next ten years, the retirement age will be raised by five years to 60 years for women and 65 years for men. The Russian labor market is characterized by a fairly high level of ageism, manifested in the reluctance of employers to hire people older than 40-45 years, to train and promote workers of pre-retirement age. The decrease in the number of young generations and the increase in the proportion of older people actualize the tasks of working with aged personnel. Given these circumstances, organizations will respond to external challenges, adapting their personnel policies to new realities. The aim of this work is to identify the willingness of organizations to employ older workers in terms of pension reform in Russia, and determine how to change HR practices in these conditions. The paper consists of two parts. In the first part, authors analyze the trends associated with the increasing share of older generations on the Russian labor market and the qualitative characteristics of this group of workers. The information base is the Russian Federal State Statistics Service microdata (labor force survey) and the Russian Longitudinal Monitoring Survey. Based on this, there are made conclusions about the segments of employment of pre-retirement age workers (50 years for women and 55 years for men) in the labor market and their competitiveness. The second part of the paper presents results of expert survey of heads of HR-activities of 38 organizations of a large Russian city on the need and opportunities to expand the use of the labor of pre-retirement age workers, including the transformation of personnel management technologies to new realities:
- possibility and conditions of using attractive for older workers working hours;
- willingness of employers to participate in the training of personnel of pre-retirement age and conditions of investment in their human capital;
- changes in the practices of recruitment, adaptation and release of personnel, taking into account changes in the Russian legislation.

The main results of the study: organizations operating in highly competitive markets and facing a shortage of personnel, demonstrate a willingness to expand the use of older workers’ labor and adapt the existing HR practices to them. However, most employers are not yet ready to change their personnel practices and adapt them to the increase in the older labor force in the labor market. To support older workers in the labor market there is required the elaboration of state programs for the adaptation of employees of pre-retirement age in the labor market.

Keywords
Personnel management, ageism, older workers.
Introduction

The Russian Federation is one of the countries with an aging population. In 2018 the share of the population in the retirement age was equal to 25% of the total population. According to the demographic prediction, this share will rise above 30% by 2035. It is widely known that the aging population reduces the flow of new labor force in the economy and reduces the total labor force as a whole. It also creates an additional burden on the working population concerning the support of the non-working population.

There are three global solutions to the problem of aging population, allowing minimizing its negative impact on the economy and the labor market:

- immigration of working-age population from the least economically developed countries;
- automation of production processes that reduce the need for labor;
- raising the age of participation in the labor force.

The analysis of the Russian situation shows the limited possibilities of using these methods. First, the country has a zero average annual migration balance of the working-age population. Secondly, the level of technology development and economic sanctions lead to the fact that Russia has a significant lag behind the leading economies in the automation of production processes (Work in Transition, 2018). In addition, the widespread availability of low-skilled and low-paid workers makes capital substitution uneconomical.

Thus, the main solution to the problem of population ageing in Russia is to increase the participation of the older population in the labor force. It should be noted that the retirement age in Russia is one of the lowest. Until the beginning of 2019, it was 55 years for women and 60 years for men.

Since 2019, the country has launched a pension reform, consisting of a gradual increase in the retirement age by 2023 to 60 years for women and 65 years for men. It is expected that this measure will solve the main problems. An increase in the length of the older population’s participation in the labor force will compensate for a decrease in the inflow of young people into the labor force. Raising the retirement age will make it possible to achieve the necessary balancing of incomes and expenditures of the Pension Fund of Russia, as well as to increase the size of pensions.

However, the solution of these problems ultimately depends on the behavior of economic agents, the configuration of benefits and costs. The increase in the length of stay of the older population in the labor market is the result of both the supply of labor and the demand for labor.

On the one hand, at present, it is legitimate to raise the question of raising the age of participation in the labor force due to increase of the actual level of labor force participation of people who have reached retirement age, increase of life expectancy and improvement of the population health, reduction in the number of jobs with difficult working conditions in industrial production and an increase in the number of jobs in the service sector, rising educational level of an older population and relatively high level of development of their competencies (Klepikova & Kolosnitsina, 2017).

On the other hand, according to the theory of human capital, the knowledge and skills of the employee depreciate with age, so the wages of workers begin to decline. This reduction is higher the higher the need for the physical effort of the employee and the use of competencies related to the flexibility and adaptability of the employee (Gordo & Skirbekk, 2013; Gimpelson, 2018). Moreover, the ongoing automation and digitalization leads to an increased demand for computer skills. This may increase the unemployment rate, especially among workers of pre-retirement age (Nica, Manole & Stan, 2018; Sorells, 2018; Nica, 2018). This problem is also considered in a gender perspective (Kral, Janoskova, Podhorska, Pera & Negurîţă, 2019).

Specialists engaged in the study of the labor market, note the existence of not only theoretical dependencies, but also a number of negative stereotypes associated with the use of older workers’ labor (Hedge, Borman & Lammlein, 2006; Conen, Van Dalen & Henkens, 2012). In relation to the Russian market, there is also a fairly wide prevalence of age discrimination - ageism. After 40 years, Russian workers face problems in finding work, older workers' jobs are limited to sectors of the economy with low wages, older workers' earnings are, all other things being equal, lower than those of younger workers (Klepikova & Kolosnitsina, 2017; Gimpelson, 2018). An attempt to solve this problem was the introduction by the state in 2018 of criminal
punishment for unjustified refusal to hire or unjustified dismissal of a citizen five years or less before retirement age, the consequences of which are ambiguously assessed by experts.

These problems indicate the need to analyze the characteristics of the demand for older workers not only through macroeconomic assessments, but also microeconomic studies. Many of them face the challenges of hiring workers in the labor market. However, this does not mean that they will respond to the signal from the state and become more active in the use of older workers’ labor.

Literature analysis showed that in many countries employers have already begun to change their personnel management practices for older workers. For example, there is a study devoted to the changes in Dutch employers’ behavior regarding the recruitment and retention of older workers in 2000-2009. The authors conclude that the position of older workers has improved between 2000 and 2008. During the recession, recruitment of older workers declined substantially, while efforts to retain older workers are in both absolute and relative terms higher than in 2000. With respect to organizational policies, the authors conclude that throughout the period under observation these policies are dominated by measures that "spare" older workers. (Conen, Henkens & Schippers, 2011). In particular, in order to cope with an increased proportion of older workers, organizations develop old-age adaptation policies (Ivanova, 2018; Lössbroek, Lancee, Van der Lippe & Schippers, 2019). But it should be noted that in many cases the human resources management practices have changed to a very limited extent. Organizations are still not engaging in practices tailored to mature employees because it is not a priority for organizations (Armstrong-Stassen, 2008).

The object of the study is the practice of working with personnel in the conditions of the pension reform carried out in Russia. Calculations show that if the labor force participation rate of this population group increases, women over 55 and men over 60 will make up 14-15% of the total labor force, compared to 8.8% at present. The majority of older workers are sufficiently skilled. The predominant areas of employment are education, health, manufacturing, trade. The most effective, according to experts, the work of older workers can be in the workplaces of highly skilled workers and specialists. At the same time, the effectiveness of their work in the workplaces of managers, especially linear, is estimated as quite low.

According to the results of the expert survey, the majority of HR managers is sympathetic to raising the retirement age, but are not ready to expand the use of older workers in their organizations. Strengthening the position of older workers in the labor market requires additional efforts on the part of the state.

1. Research methods
This study consists of two parts. The first part assesses the participation of the older population in the labor force and the qualitative characteristics of this group of the labor force. The article shows an increase in the participation of the older population in the labor force, taking into account the pension reform and changes in the age structure of the population. Information base of the study is representative for the Russian Federation microdata population survey on employment Federal state statistics service (2017) and HSE University (2017).

The second part of the study is aimed at assessing the reaction of employers to changes in the retirement age. The study is based on an expert survey of employers of the Omsk - city, which according to its economic, demographic and social characteristics occupies middle position among the major Russian cities with population 500 thousand people and more. This gives reason to believe that the situation with the use of older workers in Omsk is typical for large Russian cities, whose labor markets are developing most actively.

There were interviewed experts representing 38 organizations of large and medium-sized businesses operating in Omsk, on the use of labor of older workers (women of 50 years and older, men of 55 years and older). The selection of organizations took into account their belonging to the types of economic activity, where the work of older workers is the most common (production, transport and storage, education, health, public administration, trade). There were used the following criteria for selection of experts: holding the position of the head of human resources departments of organizations, or their deputy, or employees who individually perform the functions of personnel manager in organizations; the presence of work experience in the field of management for at least five years. The expert survey included the following blocks: characteristics of older workers; efficiency of
older workers in the context of jobs; opportunities and conditions for expanding the use of older workers; adaptation of personnel management practices for older workers.

The results were processed using descriptive statistics methods.

2. Older workers on the Russian labor market

The older Russian population has a fairly high level of labor force participation. The high labor force participation rates at the pre-retirement age (50-54 for women and 55-59 for men) are almost halved in the first five years after retirement and are around 10% thereafter. At the same time, older women have a slightly higher labor force participation rate than men (table 1).

<table>
<thead>
<tr>
<th>Group</th>
<th>Employed</th>
<th>Unemployed</th>
<th>Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>67.5</td>
<td>3.8</td>
<td>28.7</td>
</tr>
<tr>
<td>including: early-retirement age</td>
<td>75.5</td>
<td>3.8</td>
<td>20.7</td>
</tr>
<tr>
<td>in the first five years after retirement age</td>
<td>37.8</td>
<td>1.4</td>
<td>60.8</td>
</tr>
<tr>
<td>in 5 years since retirement</td>
<td>8.3</td>
<td>0.3</td>
<td>91.5</td>
</tr>
<tr>
<td>Women</td>
<td>52.8</td>
<td>2.8</td>
<td>44.3</td>
</tr>
<tr>
<td>including: early-retirement age</td>
<td>83.0</td>
<td>3.1</td>
<td>13.9</td>
</tr>
<tr>
<td>in the first five years after retirement age</td>
<td>45.6</td>
<td>1.6</td>
<td>52.9</td>
</tr>
<tr>
<td>in 5 years since retirement</td>
<td>9.0</td>
<td>0.3</td>
<td>90.7</td>
</tr>
</tbody>
</table>

Source: The authors

A five-year increase in the retirement age will lead to an increase in the labor force participation of the part of the population that is now in the "first five years after retirement age" group. Calculations show that if the labor force participation rate of this population group increases, women aged 55 and over and men aged 60 and over will make up 14-15% of the total labor force compared to 8.8% at present (authors' calculations). Such a significant increase in the labor supply of this population group requires a more careful study of its characteristics.

According to the authors' calculations, workers in this age group have a fairly high level of education. According to the classification currently used in Russia, 24.4% of employees in this group have higher education, and 44.4% have secondary vocational education. More than 90% of the employed are concentrated in a relatively small list of economic activities (Fig. 1).

Most often, employees of the "new" pre-retirement and retirement age work as skilled workers (20.4%) and specialists (38.2%). About 15% of them are employed in trade, 13.9% are unskilled workers, and 8.3% are managers of different levels.

3. Personnel management in the context of pension reform

The expected growth in the labor supply among older workers should obviously have an impact on the labor market and on the company’s personnel policy. Let's stop on the results of the experts' survey.

The results confirmed the presence of certain stereotypes regarding the characteristics of older workers (Fig. 2).
The Fig. 2 shows that older workers are prescribed both positive (commitment to the organization, professionalism, responsibility and discipline) and negative (especially often – a weak susceptibility to innovation, unpreparedness for learning and development) qualities. At the same time, state-owned companies or companies with state participation in the authorized capital more often point out the greater commitment to an organization and high professionalism, and private companies mention a weak susceptibility to innovation and loss of working time. These differences are probably to some extent the result of differences in the market position of companies. Relatively low public sector wages determine the demand for commitment and loyalty, and a highly competitive private business environment determines the demand for susceptibility to innovation.

The majority of respondents confirm the existence of ageism problem on the Russian labor market.

In response to the question whether experts are aware of cases of denial of employment to candidates because of their age, 92% of respondents reported that they know about such cases. More than half (58%) of experts believe that such cases will occur more often as the pension reform progresses. Overall, 84.2% of experts fear that the situation of older persons in the labor market will worsen (answering these questions, the experts assessed the situation in the labor market as a whole, and not in their companies).

Speaking about the efficiency of older workers in their organizations, the experts identified two niches – highly skilled workers and specialists. In their opinion, high professionalism of these workers can provide the maximum result at these workplaces. The efficiency of this group of workers in the workplaces of managers, especially linear, is estimated as low.

Increasing the number of older workers as the retirement age rises will require employers to adapt to the new situation. With the exception of some labor market niches where the prevalence of older workers is traditionally high due to high skill requirements and/or low wages (e.g. education, health, industry, transport), the rest of the companies will have to adapt to the new situation. Thus, it is known that older workers often have a need for flexible working hours. The extension of the period of employment actualizes the issues of training and development of this group of workers. Objectively worse health of older workers increases the demand for corporate social programs related to health maintenance and medical care.

Our research has shown that employers, who are generally sympathetic to the need to raise the retirement age, tend to believe that it is their organizations that will be least affected by the pension reform. The majority of respondents (more than 80%) are ready to expand the use of older workers only if external conditions change (a significant increase in demand for products, the provision of financial benefits from the state, the introduction of additional requirements for the use of older people by the state). Only about a quarter of the experts reported having or developing personnel management technologies adapted to the use of older workers. The main changes employers associate with the development (use) of part-time programs, flexible working time regimes, the transfer of older workers to jobs with a lower load, allowing keeping the employee and using his labor potential (table 2).

<table>
<thead>
<tr>
<th>Personnel management practices</th>
<th>Answers</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part-time employment</td>
<td>Exists</td>
<td>10,5</td>
</tr>
<tr>
<td></td>
<td>Doesn't exist, but it is planned</td>
<td>5,3</td>
</tr>
<tr>
<td>Flexible working hours</td>
<td>Exists</td>
<td>10,5</td>
</tr>
<tr>
<td></td>
<td>Doesn't exist, but it is planned</td>
<td>13,2</td>
</tr>
<tr>
<td>Preparing for retirement</td>
<td>Exists</td>
<td>15,8</td>
</tr>
<tr>
<td></td>
<td>Doesn't exist, but it is planned</td>
<td>10,5</td>
</tr>
<tr>
<td>Additional days off</td>
<td>Exists</td>
<td>0,0</td>
</tr>
<tr>
<td></td>
<td>Doesn't exist, but it is planned</td>
<td>7,9</td>
</tr>
<tr>
<td>Workplaces creation for older workers</td>
<td>Exists</td>
<td>0,0</td>
</tr>
<tr>
<td></td>
<td>Doesn't exist, but it is planned</td>
<td>5,3</td>
</tr>
</tbody>
</table>

Source: The authors

Some employers also declare partial adjustment of practices of selection, adaptation of personnel and development of personnel. At the same time, there is a certain dependence of the mention of these practices with the conditions in which the organization operates. More often than others, relatively small non-governmental organizations with the number of employees up to 100 people point to the use and development of practices of working with older workers.

One of the main problems of employment of older people is considered to be outdated knowledge and skills. Most often there is a need to develop soft skills, computer skills, skills in engineering and technology (37 - 45% of respondents).

However, most employers are not prepared to bear the costs of training of this group of employees. More than a half of the respondents believe that maintaining the competitiveness of
this group of workers is solely the task of the state. Another 24% believe that this task should be solved by the state together with other stakeholders. Employers are ready to engage in this work either with incentives or with the use of additional administrative resources by the state. A significant number of employers are ready to use non-market methods of solving the problem by creating jobs for this group of workers by the state, similar to the practices of subsidizing jobs for disabled people, which are widely used in the country (Fig. 3).

![Figure 3](image)

**Figure 3** Distribution of responses to the question “What do you think, what kind of effort from the government are necessary to take to not cause negative consequence for older workers because of the increasing the retirement age?” (percent of the total experts surveyed)

**Source:** The authors

The introduction of criminal penalties for unjustified refusal to hire or for unjustified dismissal by the majority of experts (more than 80%) is not perceived as an effective measure. This is largely due to the lack of elaboration of the rules and the ambiguity of the interpretation of unjustified refusal or dismissal. On the other hand, the application of this rule will lead to the fact that unreasonable refusals and dismissals will be applied in advance, before the pre-retirement age established in the legislation.

**Conclusion**

Thus, faced with the problems of shortage of labor of the necessary quality in the conditions of pension reform, firms operating in highly competitive markets are beginning to think about changing the practices of work with personnel and strategic decisions regarding work with older personnel. For such employers adaptation of personnel practices to the work with employees of senior age becomes actual. This includes the use of part-time programs, the introduction of flexible working hours, and the transfer of older workers to jobs with less workload.

At the same time, most employers are not yet ready to change the practices of working with personnel and adapt them to the increase in the share of older workforce in the labor market. They are either waiting for additional impacts from the state, or rely on increasing the intensity of employment of younger workers.

Both conclusions are consistent with the data of foreign studies. We believe that in the Russian Federation, changing the practices of working with staff will be harder because of the widespread ageism, reducing the prevalence of which requires serious and targeted measures on the part of the state.

Special attention should be paid to the problem of personnel training. Raising the retirement age will require investment in training older workers in new skills. And this need will be the higher, the more complex the work which is performed by the employee. Theoretically, an increase in the retirement age increases the return on investment in human capital, but only 5% of experts reported an increase in training practices for older workers. The concerns of others are related to the already mentioned low susceptibility of this group to innovation and unpreparedness for learning.
Thus, employers are willing to employ older workers in highly skilled jobs of workers and specialists, but are not willing to invest in their development, hoping for state assistance.

References


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Ownership structure as a measure of corporate performance

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Abstract
Economic transition is not a one-dimensional process but implies ownership, structural and management transformation. We can call the current circumstances of the economy of the Republic of Serbia post-transitional, for which the ownership transformation is largely due. The aforementioned process is the basis for the formation of a corporate sector in which all the most important determinants of professional management are expressed, since the capital market represents the greatest distance between ownership and management. The structure of corporate ownership determines the nature of the relationship between managers and shareholders, which in the final instance manifests in the form of principal - principal or principal - agent of the situation.

The paper will analyse the nature of the ownership structure of corporations, according to one of the usual three dimensions (concentration of ownership), in relation to the corporate performance. The corporate performance will be expressed using the Tobin's Q indicators. The structure of ownership of the corporation will be presented using two sets of indicators. The first group consists of indicators of percentage participation of a number of major shareholders in the form of Top_1, Top_2, Top_3 and Top_5. Another approach to property ownership analysis includes G1 (widely held) indicators that represent dispersed -owned corporations, G2 corporations with large shareholders, and G3 (ultimate owner) majority-owned corporations.

In the random sample will be selected corporations that have a listing on the Belgrade Stock Exchange, while at the level of parametric statistical procedures, methods will be used for analysing the correlation between the listed variables and identifying the differences between the groups formed on the basis of the above mentioned criterion.

The main objective of the paper is to define the ownership structure of a corporation that has direct implications for the management and performance of corporations. Corporate performance expressed through market capitalization determines the future of operations through the scope of future investments.

Keywords
Ownership structure, corporate management, performance, Serbia

Stockholders’ meetings are a ceremony in which banality is varied chiefly by irrelevance

J. K. Galbraith, 1972
Introduction

Formation of corporate sector in the Republic of Serbia began with the process of privatization, and the first forms of transformation of public property, and different models of this process determined the structure of ownership of corporate sector. The other model of privatization, implemented in 1997, implied free distribution of shares which formed a principal – agent situation in the corporate sector, that is, created circumstances where a large number of small shareholders did not have an adequate mechanism of influence, or a way to exercise the right to a decision. In the conditions of great dispersion of ownership, widely held professional management uses the dominant position in the above mentioned relationships, realising their personal interests and neglecting shareholders’ interests, resulting in the fact that ownership becomes marginalised in corporate operation, which is one of the paradoxes in the functioning of the corporate form of companies, as it leaves significant consequences on exercising the right of return on equity, that is, the dividend. Bearing in mind the above situation, the third model of privatization was applied in 2001, where the majority package is sold to a strategic investor, thus solving a situation where managers do have domination, but new circumstances are formed, those of significant presence of large or ultimate owners, placing the minority shareholders in an identical situation like in the previous case. These circumstances open the dilemma of how to regulate the behaviour of large shareholders so as to protect the interests of a large number of small shareholders without stepping into the original problem (Becht, Bolton, & Röell, 2003). Such and similar circumstances make a significant impact on providing new financing sources and market capitalization, as the low level of ownership rights does not attract investors and future investment in these corporations. No wonder, therefore, that the governments of the countries show a great interest in the inflow of foreign capital and create favorable conditions for investors (Ślusarczyk, 2018). Such paradoxical situations are especially expressed in now post-transition countries due to poor development of legal and institutional framework regulating the functioning of capital market and the corporate sector.

What we first associate with corporations is the highest level of professionalization of management based on the basic criterion of distinction of ownership and management, which is the most expressed in this corporate form. This separation of ownership and management in this case is a very complex, both institutional and extra-institutional mechanism of capital market. At the same time, regardless of the aforementioned situation of separation of two categories, there is also a significant connection, as the nature of the ownership achieves a direct impact on corporate management. Thus, ownership structure, that is, degree of concentration of ownership, is brought into a direct connection with the business result of the corporation, as structure/concentration of ownership represents the direct mechanism of corporate management.

In view of all of the above, a permanently relevant question, regardless what time it comes from, is: who controls modern corporations, shareholders or managers (Berle & Means, 1932)? The past decades have seen an accumulation of evidence on how power in modern corporations is transferred from the owners to managers, whereas the power of shareholders obviously wanes increasingly. Only a small part of the total value of shares appears at stockholders’ meetings, those ceremonies in which banality is varied chiefly by irrelevance (Galbraith, 1972). Viewing from the current perspective, it must be admitted that a significant, and long-term, if not permanent transfer of power from owners of capital of managers. Impact of this power can also be viewed outside today’s corporation, and then we mean influence on the entire society. To avoid the sensationalism of the above claims as soon as possible and give a down-to-earth explanation of these trends, it suffices to say that it is only about the continuation of transfer of power from one factor of production on another. As power used to imply ownership of land, which lost its primacy as the strategic factor of production, source of power and social position.

The basic motive of movement of power from one factor of production to another is the rarity criterion. Thus, the power goes to the production factor that is the least available, impossible or the most difficult to substitute. Such trends are imposed by the achieved level of technological development, degree of accumulated knowledge in the form of technology transferring the power from one production factor to another and thus determines which one will be dominant. This path
is natural and represents a logical process within the civilizational development. So, contemporary technology sets new demands before powerful corporations, so that they can provide sustainable development, which is disposal of highly specialised, and, above all well-organized workforce. This requirement is significantly beyond the control of modern corporation, which does not apply when it comes to capital as a production factor, as it is owing to capital that corporations of today have reached the limits of power they possess, and, before all, significant independence. Thus, today, highly specialized workforce represents a production factor for the corporation it secures in external environment, which, above all, means that it is not independent and cannot create by itself. Thus, possession of capital by corporation in modern business environment does not mean warranty and security in providing highly specialized workforce, which represents a sufficient reason to relate criterion of rarity to human factor, and, by itself, the basic condition of poser of modern corporations.

Based on the above stated opinions, it is easy to recognise that it is a new process of transfer of power from one production factor to another, in this case, from capital to organisational knowledge, as the individual, whom we would term intrapreneur, is not in the focus. In the current circumstances, the intrapreneur or corporate entrepreneur has lost superiority that used to characterize him at the time of his domination. These abilities have no value today. What demands changes is man that has become a knowledge worker, carrier of value of the major part of the company’s assets in the form of intellectual capital, highly educated individual, specialist or expert (Stojanović & Marić, 2018). The core issue here is that power, in fact, transferred to an entirely new production factor, that is, a well-organized group of individuals possessing specialized knowledge from different areas, which, joined and well organized, form the basis of corporate performance. The issue is reflected in the fact that it requires the level of knowledge that will meet actual technological requirements, which is by no means knowledge that is or can be possessed by an individual, which is organisational associated and well organized wisdom of crowds. This process has been present for the entire past century, having reached the peak in the current conditions, and, as a factor of production makes a source of sustainable competitiveness. In the context of this research, the segment of organizational knowledge is referred to as management knowledge, representing a new source of corporate power, neglecting the ownership structure and degree of ownership concentration. Empirical and secondary data are employed to support the claim that cognitive economics does not concentrate on the distribution of current informational resources but on the creation of novel knowledge (Sponte, 2018). The aim of this paper is to estimate the relative impact of ownership structure, viewed through the dimension of concentration of ownership on the success of corporate management expressed through corporate performance. In accordance with this, we ask the following research question:

**RQ: To which extent does the degree of concentration of ownership determine corporate performance?**

The remaining content of this work is organised within the following structure: the following section of the work analyses the relevant literature from the defined research area in order to define the research hypothesis. This is followed by the section that represents a way of sample selection, data gathering, before deriving final conclusions in order to realise the basic research aspirations.

1. **Theoretical basis of the paper – concentration of ownership as a control mechanism of corporate performance**

It is a fact that a significant part of the literature in the research of this work, there is a multitude of contradictory opinions and research, gives space and justifies new research into the topic of impact of ownership concentration on corporate performance. Economic transition towards market economy is absolutely incomplete without the process of ownership transformation (Barberis et al., 1996, Shleifer & Vishny, 1996). This, however, is not only an issue of form, as market economy will not function without relevant institutions and intellectual capital, that is, to put it more completely, development of capital market, development of institutional and legal structure, as well as growth of intellectual capital, conditions are required that will make market economy more efficient (Stiglitz, 1999). Writing on economic transformation without mentioning the superior transition model of Chinese economy known as dual-track approach, which implied or phasing in or gradual process as the basic strategy
of the reform of public property (Kang & Kim, 2012), is not universally applicable in all former socialist countries due to significant specificities of these economic systems.

Shleifer and Vishny (1986) point out the positive impact of concentration of property on corporate result, which is exclusively based at the expense of the interest of small and in favour large and majority stakeholders, as opined by Holderness and Sheehan (1988), Barclay and Holderness (1989), Shleifer and Vishny (1997), which directly aggravates financing and issuing new shares. If such circumstances exist in a corporation, consequences are also manifested in the short run in the form of jeopardized liquidity, which, in any case does not bypass the success of management, which is the most indicative through market capitalization (Holmstrom and Tirole, 1993). However, highly respectable authors in this research area, Demsetz and Lehn (1985) do not confirm the connection between concentration of ownership and profit, whereas McConnell and Servaes (1990) point out that there is no correlation between market capitalization and costs of property. Thus, Holderness (2003) derives a general standpoint where he points out that there is no generally present positive or negative impact of property concentration on market capitalization.

Viewing the impact of property concentration on corporate performance from the angle of dynamic perspective and national conditions of business operations and degree of development of national economy, Nguyen, Locke and Reddy (2015) point out that there is a stronger correlation of the degree of property concentration in underdeveloped countries than in countries of higher degree of development, explaining this situation in the manner that the mechanism of corporate management can substitute for the weaknesses of national management. The authors of this paper accept the factual part of the above research results, which point out the stronger correlation between property concentration and corporate performance in underdeveloped countries compared to countries of higher degree of development, but they do not with the offered justification. Namely, the authors of this paper (Marić, Uzelac and Strugar Jelača) accept the existence in the strength of correlation between the observed phenomena, but state as explanation that power in less developed countries is concentrated on capital as production factor, which is why a significant section of corporate business performance stems from control over capital, in this case equity. Whereas in most countries of the third degree of development, with a lower degree of control over capital and corporate performance is the consequence of transfer power from capital to the new production factor, organisational knowledge, as explicitly represented in the introductory part of the paper. In the statements of the previous authors, dynamic perspective is interpreted in such a way that the current management structure and performance are determined by past performance (Wintoki, Linck & Netter, 2012).

Contrary research results are found in Li, Lu, Mittoo and Zhang (2015), who point out that a lower level of ownership concentration, at the same time, means a greater independence of corporate management and a higher level of corporate performance. Such results can be explained by a higher degree of development of corporate sector in terms of a whole as a corporate culture that prevails in economy, which was the subject of this research. It is necessary to point out here that corporate performance differs depending on the nature of ownership, where positive results go in favour of the private in comparison with public.

There are actual research results, such as Kumar and Zattoni (2013), Filatotchev, Jackson and Nakajima (2013), among others, who refer to research and existence of interaction of the level of natural development of the country and organizational variables in studies on corporate management. Thus, Wang and Shailer (2015) point out the need for future corporate research on the relation between ownership structure and corporate performance in developing countries, which they confirm with results of their own research that this topic in the mentioned framework remains a controversial issue. This conclusion is not only a consequence of disagreement in theoretic opinions, but also contradictory results of empiric research.

1.1. The control variable

The feature included in the analysis of research as a control variable is the size of corporation, as this criterion directly determines competitiveness. The size of the corporation is measured by value of property, that is, size of the assets of the balance sheet. Large corporations are expected to possess a higher level of profitability owing to economies of scale, as well as all other advantages stemming from the corporation’s economic power, and,
above all, possessing a significant capacity for absorbing business risk. A higher level of corporate competitiveness influences a higher level of market capitalization, which directly determines future business operations by attracting new investors more successfully.

2. Methodology

2.1. Sample and data

The sample is comprised of 150 corporations (joint stock companies) selected by a defined criterion of randomness, listed on the Belgrade Stock Exchange. Data required for research was collected from three sources. Data on the value of market capitalization of equity Belgrade Stock Exchange (Beogradska berza, 2019), data on ownership structure from the Central Register, Depot and Clearing of Bonds (Centralni registar, depo i kliring hartija od vrednosti, 2019), data on the total value of corporate property, financial reports – latest available balance sheet, Business registers Agency (Agencija za privredne register, 2019).

2.2. Variables and quantitative procedures

Having overviewed the literature on the research area in the choice of the measures of structure/ownership structure, the dominant approach is of Demsetz and Lehn (1985), grouping shareholders into 5 major or 20 major shareholders as the percentage of ownership share in the total equity, and AH as Herfindahl index of ownership concentration, which is calculated as the sum of squares of the percentage of shares controlled by every individual shareholder. Another frequently used measure of ownership concentration is extraction of majority shareholders (ultimate owners) (Holderness & Sheehan, 1988) or recognising the percentage share of the major shareholder (Claessens, Djankov, Fan, & Lang, 2002) as a measure (Claessens et al., 2002). While Prowse (1992), Hovey, Li and Naughton (2003) point out a separate measure of percentage of five largest shareholders. What is important to point out when selecting appropriate measures of ownership concentration, especially in the case of measures based on groups of the largest shareholders, attention needs to be paid to whether there is a majority owner. In such situations, where we have the presence of a majority owner, when carrying out certain research and defining the impact of ownership structure on corporate management and corporate performance, its influence is far more significant than the influence based on the measures of a certain group of shareholders. While measuring the influence of the group is significant only in satiation when we have several major shareholders who can exercise control over corporation. For this reason, the authors opted for analysis of impact of owner concentration based on both approaches.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobin’s Q</td>
<td>measure of corporate performance – coefficient of market capitalisation: value of market capitalisation of equity / book value of the total assets</td>
</tr>
<tr>
<td>Top_1</td>
<td>% share in the total issue of the largest shareholder with voting rights</td>
</tr>
<tr>
<td>Top_2</td>
<td>% share in the total issue of two largest shareholders with voting rights</td>
</tr>
<tr>
<td>Top_3</td>
<td>% share in the total issue of three largest shareholders with voting rights</td>
</tr>
<tr>
<td>Top_5</td>
<td>% share in the total issue of five largest shareholders with voting rights</td>
</tr>
<tr>
<td>ComSize</td>
<td>Size of corporation measured by total assets</td>
</tr>
<tr>
<td>Group 1</td>
<td>Group of corporations with small shareholders or with dispersed ownership (widely held), where the share of the largest shareholder does not exceed 20% shares of the largest shareholder</td>
</tr>
<tr>
<td>Group 2</td>
<td>Group of corporations with a great shareholder where the share of the largest shareholder exceeds 20% of shares with voting right, but is lower than 50%</td>
</tr>
<tr>
<td>Group 3</td>
<td>Group of corporations with majority shareholder (ultimate owner), where the share of the largest shareholder exceeds 50% of shares with voting right.</td>
</tr>
</tbody>
</table>

With respect to research intention, the ultimate goal of corporate management is achieving long-term shareholder value; such an income can be expected if the best management practices are adopted, which will leave direct consequences on corporate performance (Anum Mohd Ghazali, 2010). The choice of Tobin Q’s coefficient as a corporate performance measure is essential for several reasons (Demsetz & Villalonga, 2001). Above all, it includes future time perspective in the form of forward-looking approach, as this is the base of performance approach in terms of
business opportunities in achieving the set goals, but viewed at the moment of setting goals, that is, from the perspective of the present. This approach is far more sensible in assessing goals that managers should achieve. The following reason that gives advantage to the chosen measure; in the case of Tobin’s Q coefficient, they are future investors who use the chosen measure to express the level of confidence of the business environment and all the stakeholders in the corporation.

Standard multiple regression as a method applied in this paper enables predicting the expected outcome of a given set of predictor variables of property concentration (as continuous variables), as well as which variable viewed individually, represents the best predictor of business performance. Bearing in mind the specific features of this method, we set the following research assumption:

**H1:** There is a positive correlation connection at the level of statistical significance between measures of ownership concentration and the measure of corporate performance;

The other method that we opt for is MANOVA, whose application is enabled by the nature of variables of concentration of property (as a categorical variable and all other subsequent procedures implied by the entirety of the calculative procedure based on the selected method. Bearing in mind the specific features of this method, we set the following research assumptions:

**H2:** There is a statistically significant difference between defined groups of corporations in relation to the observed variables;

**H2a:** There is a precisely defined border between the defined groups of corporations in relation to the observed variables;

**H2b:** There is a statistically significant difference between defined groups of corporations by individual characteristics.

### 3. Analysis of research results and discussion

The significance of this topic and nature of research in the Republic of Serbia is reflected, first of all, due to the development phase of the social and economic system, and, in accordance with this, identifying the basic specific features of the corporate sector. The analysis of these positions in the previous sections of the paper confirms the currency and worthwhileness of this type of research, and, above all, the effort do offer an appropriate answer to the set research question based on research results. The concept of research was defined the selected measures of the observed phenomena to a significant extent.

| Table 2. Descriptive statistics of selected variables for the application of multiple regression |
|-------------------------------------|-----------------|-----------------|---|
| **Mean** | **Std. Deviation** | **N** |
| Tobins Q Ratio (Market Values/Asset Book Value) | 5049 | 0.89658 | 146 |
| % share of the first shareholder Top_1 | 58.9897 | 24.87023 | 150 |
| % share of the first two shareholders Top_2 | 70.4373 | 21.57453 | 150 |
| % share of the first three shareholders Top_3 | 74.9330 | 19.82014 | 150 |
| % share of the first five shareholders Top_5 | 78.4925 | 18.84817 | 150 |
| Asset Book Value | 1023585415.0068 | 2123286779.45398 | 147 |

Source: The authors’ calculation

The first approach to measuring property concentration based on measures Top_1, Top_2, Top_3 and Top_5, including the measure of corporate performance Tobins Q ration and measure of size of corporation Asset Book Value forms a model for application of multiple regression so as to determine how well the set of variables of property concentration and size of corporation predicts corporate performance. Given that standard multiple regression as a method is highly sensitive to defined assumption, multicollinearity as one of the basic features makes the model unacceptable, as variables Top_1, Top_2, Top_3 and Top_5, as independent variables are highly correlated with the value of coefficient r > 0.9, value of Tolerance < 0.10 and value of VIF at a high value above borderline value 10. This correlation is a consequence of a high level of property concentration, where 2/3 of corporations in the sample have a majority owner, implying absolute control, so that the remaining measures do not reflect a different nature, which can all be seen based on the mean vales of other measures presented in Table 2. As regards the measures of ownership concentration, the approach of Demsetz and Lehn (A5, A20, AH index) is applicable in countries where there is a high dispersion of ownership in the corporate sector. In countries with underdeveloped corporate sector and capital market, significant
ownership concentration, which predominantly represent the specific feature of post-transition economic circumstances, it is of great importance to analyse the impact of the majority shareholder (Earle, Kucsera, & Telegdy, 2005). By reducing the model for variables that do not meet the condition of multicolinearity, which are, due to high ownership concentration, essentially not different from variable Top_1, we got the results of correlation analysis shown in Table 3.

Valuation of the acquired model, which is done based on square value of the coefficient of determination which is in Table 3 and amounts to r²=0.033. This value points to what section of the variance of the dependent variable explains the set model. Expressed in percentage, the coefficient has the value of 3.3%, which means that 3.3% of corporate performance is explained by the set model, which is a very low value for this type of research.

When rejecting the method, apart from going in favour of the property concentration, we assessed to which extent the value of coefficient of determination is statistically significant for the set model, which is presented in Table 4, ANOVA, with the results of the test of the 0th hypothesis that r²=0. Given that the value Sig=0.089, which means in fact, that the model does not reach statistical significance. All the previously analysed results obtained by application of standard multiple regression point to rejection of H1.

In view of the opinions of Demsetz and Lehn, we include the second approach in the choice of measure of property concentration, in other words, mostly present majority shareholder, due to which the above stated approach loses significance. The second approach points to establishing the difference between groups of corporations G1, G2 and G3 (La Porta, Lopez‐de‐Silanes, & Shleifer, 1999) in relation to corporate performance expressed in Tobin’s Q coefficient.

Procedures of unifactorial multivariate variance analysis was used to examine the differences between the defined groups of corporations according to the above stated criterion characteristic of ownership concentration in relation to the selected dependent variables, Asset Book Value, Tobins Q Ratio i Top_1.

Based on the results from Table 5, a statistically significant difference was established between groups of corporations G1, G2, and G3 in relation to linear combination of dependent variables, F (2,282.000) = 56,553, Wilks’ lambda 0.206 with statistical significance p = 0.000 (Tabachnick & Fidell, 2007). These results point to acceptance of hypothesis H2.

Out of the results of discriminant analysis F (2, 141.000) = 217,311, which is pointed to by value ) = 217,311, we conclude that there is a clearly defined border between the observed groups of corporations as an independent characteristic in relation to selected variables. These results point to acceptance of hypothesis H2a.

### Table 3. Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.183*</td>
<td>.033</td>
<td>.020</td>
<td>.88766</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Asset Book Value (equity book value), % share of the first shareholder
b. Dependent Variable: Tobins Q Ratio (Market Values/Asset Book Value)

Source: The authors’ calculation

### Table 4. ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td></td>
<td></td>
<td>2,464</td>
<td>.089*</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>143</td>
<td>.788</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>145</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Tobins Q Ratio (Market Values/Asset Book Value)
b. Predictors: (Constant), Asset Book Value (equity book value), % share of the first shareholder

Source: The authors’ calculation

### Table 5. MANOVA and discriminant analysis in relation to group of dependent variables

<table>
<thead>
<tr>
<th>Analysis</th>
<th>n</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANOVA</td>
<td>3</td>
<td>56.553</td>
<td>.000</td>
</tr>
<tr>
<td>discriminant</td>
<td>3</td>
<td>217.311</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: The authors’ calculation
The results of the above quantitative procedures pointed to the differentiation and existence of limits between the categories of criterion characteristic of the observed phenomenon, thus leading to the subsequent steps in the analysis and considering dependent variables separately.

Table 6. Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Asset Book Value</td>
<td>4487160184829640700,00</td>
<td>2</td>
<td>2243580092414820350,00</td>
<td>.492</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tobins Q Ratio</td>
<td>.935</td>
<td>2</td>
<td>.468</td>
<td>.578</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Top_1</td>
<td>69165,110</td>
<td>2</td>
<td>34582,555</td>
<td>271,36</td>
<td>.00</td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis and consideration of dependent variables separately is presented in Table 6, which were obtained based on univariate procedures, in the form of indicator F, number of degrees of freedom df and margin of error of the first type. ANOVA analysis aims to establish the difference between the defined groups of corporations based on each individual characteristic, as well as contribution to the established difference of each dependent characteristic by means of indicator Partial Eta Squared.

Table 7. Descriptive Statistics

<table>
<thead>
<tr>
<th>Groups of shareholders</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Book Value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1&lt;20%</td>
<td>1267423000,0000</td>
<td>1556973768,0072</td>
<td>8</td>
</tr>
<tr>
<td>G2&gt;20%</td>
<td>740246710,5263</td>
<td>1724591026,99752</td>
<td>38</td>
</tr>
<tr>
<td>G3&gt;50%</td>
<td>1121972200,0000</td>
<td>2304286044,78724</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>1030588972,2603</td>
<td>2128891472,28836</td>
<td>146</td>
</tr>
<tr>
<td>Tobins Q Ratio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1&lt;20%</td>
<td>.3932</td>
<td>.33838</td>
<td>38</td>
</tr>
<tr>
<td>G2&gt;20%</td>
<td>.5959</td>
<td>1.05626</td>
<td>100</td>
</tr>
<tr>
<td>G3&gt;50%</td>
<td>.3600</td>
<td>.36512</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>5.049</td>
<td>8.9658</td>
<td>146</td>
</tr>
<tr>
<td>% of share of the first shareholder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1&lt;20%</td>
<td>9.5163</td>
<td>6.21759</td>
<td>8</td>
</tr>
<tr>
<td>G2&gt;20%</td>
<td>32.3895</td>
<td>7.91137</td>
<td>38</td>
</tr>
<tr>
<td>G3&gt;50%</td>
<td>74.0788</td>
<td>12.56809</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>59.6905</td>
<td>24.54964</td>
<td>146</td>
</tr>
</tbody>
</table>

Having analysed the results of Table 6, we can conclude that hypothesis H2b is partially accepted, as the contribution to the existence and precise disambiguation of the defined groups of corporations, out of three independent characteristics, only the characteristic % of participation of the largest shareholder with values F (2, 143) = 271.360, statistical significance at the level F (2, 143) = 271.360, and value Partial Eta Squared 0.791 contributes to the above mentioned research assumption.

Conclusion

In the context of this research, the primary observed characteristic in the form of Tobins Q Ratio as a measure of corporate performance did not contribute do differentiating groups of corporations with more than 50% shares with a voting right, large shareholder with more than 20% of voting rights, and minority shareholders whose percentage of participation in equity does not exceed 20%. Based on the above, we can concluded that the essential difference between majority, minority and small shareholders can form the majority package of shares and achieve control over corporation. This situation can further be explained that, due to express high ownership concentration (as seen in Table 7, descriptive statistic and dominant influence of majority or several large shareholders, equity does
not receive appropriate market verification, as pointed to low values of indicator Tobins Q Ratio, primarily as a consequence of the present principal – principal situation, influencing the low level of confidence of potential investors and low level capitalization level of equity. Thus, in accordance with the situation that the corporate sector is, capital market only becomes mechanism or redistribution of property rights, which should be the secondary function, whereas primary function in the form of mechanism of financing this sector almost does not exist.

**References**


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Factors affecting strategic relations: a study of China’s internationalization policy with a view to relationships with Pakistan

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Abstract

China’s President Xi Jinping’s formal visit to Pakistan on 20-21 April 2015 marks as a milestone in the development of China-Pakistan relations. Keeping in view the president’s Xi’s visit in 2015, the first part of the study assesses the significant outcomes of Xi’s visit and its implications with reflections to literature. It considers the most essential, economic, political and social consequences for both countries’ bilateral relations. The second part of the study focuses on measuring the most influencing factors for country relations through ranking the most highlighted factors of two neighbouring countries during Xi’s visit in 2015. In literature, researchers try to evaluate the visits of the country head and its impact on the countries’ relations through qualitative methods. In this unique study, the researchers have surveyed to define the levels of elements which are supposed to be more important during Xi’s visit for both country relations in a quantitative way. Thus, this paper is potentially original for applying a predominantly mathematical analysis for measuring country head visits and bilateral relations of countries; which has been so far evaluated predominantly by qualitative analysis. In this current study, the ranking and weights of the matrices show that during Xi’s visit to Pakistan in 2015, the significant contributions towards China Pakistan relations were more economical. Therefore, this paper contributes to the literature in the sense that it provides a mathematical equation to measure the factors contributing to bilateral relations for any country head/delegation visit to any other country. Future studies may include some other elements besides political, economic, and social to measure the country relations quantitatively.

Keywords

Analytic Hierarchy Process; strategic alliance; regional economic growth; country relations

Introduction

China’s President, Xi Jinping’s formal visit to Pakistan on 20-21 April 2015 marks yet another milestone in the development of China-Pakistan relations (Ahmar, 2015). This visit has taken China and Pakistan closer together than ever before, thus laying the basis for a stronger and more efficient partnership (Heilmann, Rudolf, Huotari, & Buckow, 2014). Notably, the higher level of mutual trust has made them more contented in pursuing closer economic, security, and social cooperation, and holds substantial implications for the whole region (Rizvi, 2015). President Xi Jinping is the
second Chinese leader to visit Pakistan in the 2010s after Chinese Premier Li Keqiang’s visit to Pakistan in May 2013 (Khan, 2014). This visit is also Xi’s first overseas trip of 2015 which has led to the mutual agreement of accords for $46 billion of investment in Pakistan by China for the construction of roads, rails and power plants to be built on a commercial basis by Chinese companies over 15 successive (Haq & Farooq, 2016). Added to that, this visit indicates the endorsing of the deal of eight Chinese submarines, more than double Pakistan's marine (Hali, Shukui, & Iqbal, 2015).

International media reports remarkably cover it. In the United States, the New York Times, claims that it is a signal likely to confirm the decline of American influence in Pakistan. CNN states that this trip is as a milestone for the development of the developing country. Al Jazeera presents such visit as a way for Beijing to access the Arabian Sea to increase its trade with Europe, the Middle East, and Africa. The Washington Post describes this trip as more economical than political. The BBC news reports that the Chinese state and its banks would lend to Chinese firms to carry out the work, thus making it a viable project with a direct impact on China's economy. Literature suggested that sharing economy is one of the best factors to boost economies (Nica, 2018). The Times of India and Hindustan Times remark that during Xi’s visit, Pakistan conferred its highest civilian award Nishan-e-Pakistan to Xi Jinping for his outstanding contribution in promotion of China’s relationship with Pakistan (Chen, Joseph, & Tariq, 2018).

The President Xi Jinping was supposed to visit Pakistan in 2014 during his South Asia trip to India, Maldives, and Sri Lanka but he suspended it due to political unrest in the country. In some media channels reports, Xi Jinping’s trip to Pakistan was to attend the Pakistan Day parade in February 2015, in the milieu of President Obama’s visit to India. After these delays and long time, the Chinese foreign minister Wang Yi confirmed that Xi Jinping would be making his first state visit to Pakistan in April 2015. Eventually, on 20-21April 2015, President Xi visited Pakistan, and fifty-one MoUs have been signed for the betterment of two countries (Fallon, 2015).

Keeping in view the long-lasting bilateral relationships and president’s Xi’s visit in 2015; the first part of the study assesses the Xi’s visit’s significant outcomes and their implications with reflections to literature review for both countries relations. The first part of the study reviews recent developments in the maturing partnership between China and Pakistan; it considers the most critical recycled economic, political and social outcomes; it also offers an in-depth analysis of the Chinese lifting major activities in Pakistan. The second part of the study focuses on the most outcomes/highlighted factors of the bilateral relations between these two neighbouring countries during Xi’s visit (Abid & Ashfaq, 2015).

In literature, it is found that there is no logical evaluation and a mathematical model to measure whether the official visit of country head/delegation measured effectually or not. It can be seen that the researchers try to evaluate the trips or visits of the country heads/delegations and its impact on the countries' relations through qualitative methods. Due to the chances of biases of researchers’ in qualitative research, the reliability of these findings limits the studies, and there is no more use of the results for further policy implementations.

In this unique study; first, the researchers’ have conducted an in-depth literature review and interviewed to fix the main issues highlighted during and the aftermath of the president’s Xi’s visit in 2015 to Pakistan. After defining the major issues and factors highlighted in this trip, a survey was conducted with respondents to define the levels of elements which are supposed to be more important during this visit for both countries relations. President Xi’s visit to Pakistan in 2015 has been taken as the core study target and grounded it to modelling an Analytic Hierarchy Process method to measure the main factors affecting China-Pakistan relations.

To construct a mathematical model for measuring country head visit’s pros and cons; researchers have ranked the highlighted factors through the mathematical and conceptual model with evaluation impact indexes. In this paper, it is claimed that it uses a quantitative way to measure the country heads’ visit and its outcomes very first time; previously, it has measured through qualitative ways. The current research makes use of the Analytic Hierarchy Process (AHP) model to measure the main outcomes of Xi’s visit to Pakistan in 2015 to measure factors affecting China-Pakistan relations.

AHP is best used by researchers (Saaty, 2008) as a technique of organization and analysis based on mathematics, but its application received credit in many sectors requiring complex decision-making, especially in business and other social sciences. More recently, AHP is also used in processes of complex decision-making that need the evaluation of several components, including
also qualitative assessments and having a longer-term impact and high stakes.

This paper is potentially original for applying a predominantly mathematical analysis for measuring country head visits and bilateral relations; which has been so far evaluated mainly by qualitative studies.

1. History of China- Pakistan relations: a literature review

Pakistan and China have a long history of consistent, friendly relationships. These two countries have proven a model for other countries to have regular and reasonable relations. Although the changes took place in governments of both states, the relationship did not affect over time. These two countries always respect each other’s freedom, sovereignty, territorial integrity, and political diplomacy. These relations boost the economic and social development in each country because of sharing economy (Popescu, 2018). Pakistan has always supported China in its Tibet and Taiwan issues while China also has assisted Pakistan in its Kashmir issues and offered its economic and trade assistance(Kazimi, 2016). As compared to all of China’s neighbouring countries, the China-Pakistan relations are the closest and friendliest for many years (Afridi & Bajoria, 2010). The two countries always enjoyed close collaboration in areas such as trade, border sharing, and their military assistance. China is not only striving to be a good friend of Pakistan, but it also threatens the United States and some other world powers by economic development (Bijian, 2005). The China-Pakistan friendship of several years now has a new objective—to improve the economic, security, and social content of their relationship, which comprises trade, investment, and energy cooperation within a bilateral framework. The relations seem to be more economical in the history, and the trade provides China access to a new market for its goods and for a foreign investment opportunity for Pakistan (Kataria & Naveed, 2014). In this study, the history of bilateral relations has been limited to the era of 2000-2015.

1.1. Visits of China- Pakistan country heads/delegations in the past and some highlighted issues 2000-2015

In January 2000 Pakistan’s Chief executive visited China for bilateral relations. He met the Chinese Primer Zhou Rongji and discussed recent tensions between US sanctions on Pakistan’s nuclear policy and democracy-related issues. The visit was concluded with remarkable comments by Chinese Premier Zhou Rongji that the Pakistan-China relations will not be affected irrespective of the military government in Pakistan (Kataria & Naveed, 2014). In 2001, Chinese primer visited Pakistan, and Gwadar port project was the main subject in this visit. The authorities also discussed the relations on security (Tao, 2012).

In December 2001, Pakistani president Pervez Musharraf visited China. He met Chinese president Jiang Zemin. The leadership discussed the bilateral relationship under the umbrella of the terrorists attack in the World Trade Centre on 11 September 2001. The visit was concluded with the remarks that Pakistan’s assistance to the US for the war on terror would not affect China-Pakistan relations (Sattar, 2007).

In 2002, China became an active player with the US and European Union determinations to stop tensions, i.e. war between Pakistan and India. On March 2003 the PM of Pakistan Jamali visited China and met with Chinese new Prime Minister Wen Jiabao. The peaceful nuclear plant, transmission, and to establish a Pakistan-China friendship forum were the primary outcomes of this visit (AbdulHaq, 2015).

On April 2005, Chinese Premier Wen Jiabao’s visited Pakistan. This trip was remarkable in establishing a new era of bilateral relations. Both sides’ authorities signed twenty-one agreements to promote close trade and economic ties, and the free trade plans were one of these agreements which were highlighted in the media (Sattar, 2007).

On November 2006, the Chinese President Hu Jintao visited Pakistan. During this trip, President Hu Jintao met with high Pakistani officials, and both countries signed MoUs for stronger bilateral relations. The Chinese President Hu Jintao was awarded the highest civil award of Nishan-I-Pakistan on his excellences and ideal leadership.

On August 2008, the Prime Minister of Pakistan Yousaf Raza Gilani visited China to attend the Beijing Olympics. The PM of Pakistan met with Chinese President Hu Jintao, and the same year PM of Pakistan visited China second time and attained the Asia Europe Summit Meeting and signed many projects.

In 2009, the President of Pakistan Asif Ali Zardari visited Chinese provinces Hangzhou and Guangzhou. In this trip, the leadership of both countries signed Memorandum of Understanding for cooperation in the field of fisheries. In this same year, the Prime Minister of Pakistan Yousaf Raza
Gilani went to China to attain the meeting of the Shanghai Cooperation Organization, and he also met the top leadership of China and signed different contracts.

In 2010, the president of Pakistan visited China on the special invitation of Chinese President to attend the opening ceremony of the 16th Asian Games. The Prime Minister of China, Wen Jiabao also visited Pakistan in 2010. During this visit, The PM of China met the high officials of Pakistan and inaugurated the “Pakistan-China Friendship Centre” in Islamabad.

In 2011, the President of Pakistan Asif Ali Zardari visited China to attend the China-Eurasia Expo and met with the high official of China, including the president of China. In the same year, Prime Minister of Pakistan Mr. Gilani visited China to attain the Shanghai Cooperation Organization (SCO). During these two visits, the leadership of both countries insisted on having strong relations between China and Pakistan.

In 2012, Chief of Army Staff of Pakistan General Ashfaq Kiyani, PM of Pakistan Yousaf Raza Gilani, President of Pakistan Asif Ali Zardari and Pakistani parliamentary delegation visited China in different dates. All these visits resulted in signing in different bilateral agreements on trade, peace, and security.

In 2013, Pakistani PM Visited China on the invitation of Chinese Premier, and during this visit, several projects were discussed (Pantucci, 2014).

In 2014, President of Pakistan Mamnoon Hussain visited China as his first official trip and met with his counterpart of China and signed many MoU, and in the same year of 2014, the PM of Pakistan visited China and signed 19 agreements including CPEC.

On April 2015, Chinese President Xi Jinping visited Pakistan. During this trip, the Chinese president met with many high officials of Pakistan and signed 51 MoUs, including the plan of "Pakistan China Economic Corridor." In the same year, PM of Pakistan attends the prime ministers' meeting of the Shanghai Cooperation Organization (SCO) secession as the representative of an observer state.

Based on the literature related to China-Pakistan relations and the outcomes which have been highlighted in the forgoing visits of different delegations of both countries and through in-depth interviews there were selected factors which affect China-Pakistan relations. All these factors were analyzed through AHP mathematical model. The coming section describes the ranking and other matrix analysis techniques for this quantitative study.

2. Model of Analysis

Measuring country relations by the country head/delegation visits is not an easy task. During and after country heads visits; research, media personals and politicians are always trying to evaluate these visits. Keeping in mind the previous literature and the outcomes of the Xi’s visit to Pakistan in the media and other reports and on the bases of in-depth interviews; the model for evaluating country relations was developed. This model was pre-tested and found valid to measure the factors affecting country relations in the visits of the country heads through AHP.

2.1. Methods of Constructing Factors

China-Pakistan relations were first defined in the dependent and independent variables. Country relations were defined as the dependent variable, and the political, social, and economic actions are taken as independent variables and treated as mid-level factors in the indexes for AHP modeling. To measure each independent variable, there were defined sub-constructs, which are treated as lower factors in AHP model. Further details were provided in the forthcoming sections. This section discusses the key variables used in this study, along with the nature of the variables.

2.2.1. Dependent Variable Level

- Country relations

2.2.2. Independent Variables (mid-level)

- Political Actions
- Social Actions
- Economic Actions

2.2.3. Lower Factors Level

- Defence Co-operation
- Country image
- War on terror
- Regional Stability
- Cultural Relations
- Cooperation in the disaster
- Education Exchanges
- Health services
- Trade Co-operation
- Energy Co-operation
- Foreign Direct Investment
- Infrastructure
2.3. Explanation of key elements

2.3.1. Country relations

Although many factors that affect country relations can be found in literature, here, in this study, it is only dependent on three main factors, political, social, and economical. These factors are extracted from different interviews and literature review. During Xi’s visit to Pakistan, these factors were highlighted, and many projects related to these factors are assigned to boost both country relations.

- **Political actions**

  Political relations of countries are always on the top priority to get more benefits. After careful literature review and in-depth qualitative interviews, the authors selected: defense cooperation, country image, military relations, and regional security, as factors responsible for political relations of countries in China Pakistan settings. These factors are also highlighted during Xi’s visit to Pakistan in 2015.

  1. **Defence co-operation**

     In the history of China and Pakistan, there can be seen a lot of defence agreements where both countries have promised each other to boost up the ties in defense. This co-operation is especially important for Pakistan, as China serves the purpose of a high-value guarantor against India. The premier president of Pakistan Musharraf’s February 2006’s visit to China and the subsequent visit by the Pakistan Air Force (PAF) Chief to China has proven the defence relations between the two states. On 23 May 2006, Pakistan clinched a $600 million defence deal with China, which is also one of the major defence agreements between two neighbour countries. Recent developments in defence cooperation between these neighbour countries can be seen in the light of many defence projects in CPEC. The US former president, Bush’s visit to India and a formation of a nuclear deal between US and India, bring Pakistan closer to China. Pakistan fails to have nuclear co-operation with the US just like India have. To overcome the threat from India, Pakistani authorities started to have dialogues with China. Pakistan succeeds to get more nuclear co-operation with China like; the short and medium range solid fuel missile technology, and the likely partner in the development of Pakistan’s Land Attack Cruise Missile which was tested by Pakistan in 2005. In 2006 visit of Pakistani President Musharrafs, an agreement was signed to build co-operation in the peaceful application of nuclear energy. Literature also suggested that technological advancement is leading countries toward sustainable economic development.

  2. **Country image**

     In the trips of the country heads, every country tries to build its image through media reports and by other sources. Sometimes many international media channels independently give coverage of such official trips. During the Xi’s visit to Pakistan in 2015, on one side, the international media was very active, and on another side, both countries image was gone up.

  3. **War on Terror**

     The Joint Marine Research Centre established under the CPEC project is one of the major political outcomes of the Xi’s visit to Pakistan, which shows the interest of both countries for the war on terror.

- **Social actions**

  To keep the broader country relations, every nation tries to have some social activities in other nations. In case of China-Pakistan relations, and in the light of the Xi’s visit to Pakistan in 2015 cultural relations, cooperation in the disaster, education exchanges, and health services were taken as the main factors for social relations of both countries.
1. Cultural relations

In September 1999, the Pakistani government cultural delegation visited China. These cultural exchanges were very useful in the field of art, education, health, sports, literature, and information. In literature, quite a few writings from two sides were translated into each other's language. In the 1980s, a special agreement has been signed between two states to promote cultural interaction in the field of TV and film. Both states give importance to cultural relations to increase people to people cooperation for strong Pakistan-China relations. China appreciates Pakistan’s effort to expand Chinese language and Confucius Institutes in Pakistan. The recent President Xi’s Visit also recalled the previous agreements and cooperation and promised to have more strong cultural relations.

2. Cooperation in the disaster

Pakistan and China have faced an earthquake disaster in 2005 and 2008, respectively. Cooperation of both states showed their time test and strong relations at the time of need. In October 2005, a dreadful earthquake hit Pakistan and some areas of neighbouring countries. After the earthquake disaster, in the first week, China provided $6.2 million in aid to Pakistan. This aid included new 150,000 blankets and 3380 tents worth of 50 million Yuan. Total aid package from China reaches up to $20.5 million. Pakistan’s cabinet Secretary Ejaz Rahim stated, “We cannot forget that China is amongst the first countries to leap to the assistance of the people of Pakistan and it has done it whenever Pakistan is in need.”

In 2010, Pakistan faced the worst flood disaster of history, causing huge losses in life. This disaster affected eighteen million population of Pakistan. It also destroys infrastructure, roads, homes, bridges, irrigation system, crops and livestock’s and spread diseases environmental and social issues. China is one of the first countries which offered immediate aid after the flood disaster. China has sent its medical team to assist the people of affected areas. The Chinese government, social organizations, and common people also denoted aid for Pakistani people.

3. Education exchange

China-Pak educational exchanges and cooperation have always developed in history. In 2003, cooperative education exchanges programs were started between Pakistan and China. During Xi’s visit to Pakistan in 2015, he announces to double the scholarships for Pakistani students. In recent time thousands of Pakistani students are getting higher education in China. There are also many exchange students under cultural and educational programs.

4. Health services

To boost the services of health in the light of China Pakistan relations; Gwadar hospital is one example of the social works of China under CPEC, and it is announced during the Xi’s visit to Pakistan in 2015. After the announcement of these social works China Pakistan, bilateral relations became stronger.

- Economic actions

Behind the political and social relations, each country in the world tries to have an economic interest in every field of relations. As technology has a positive impact on economic development (Hardingham, Vrbka, Kliestik, & Kliestikova, 2018). China-Pakistan also has many projects which are based on the mutual relations and for economic interest. The economic interest of both countries can be seen in the developments of China Pakistan relation throughout history. To evaluate the China-Pakistan economic relations, trade co-operation, energy co-operation, foreign direct investment, and infrastructure are taken as responsible factors on the bases of literature review and in-depth interviews.

1. Trade co-operation

Despite the world economic problems, Pakistan-China trade increases by 18.2pc to $4.4 billion in 2016. During Musharraf’s February 2006 visit, Pakistan becomes an observer of the Shanghai Co-operation Council. This is a great achievement of Pakistan and also a milestone for future relations. A free trade agreement (FTA) was signed between Pakistan and China in 2006 and implemented in 2007. The technological advancement which China specially transfers to Pakistan will help to fulfil the labour requirement and trade relations in industry (Mitea, 2018; Neary, Horák, Kovacova, & Valaskova, 2018).

2. Energy co-operation

In 2014, Chinese Prime Minister announced an investment of $31.5 billion in Pakistan, mainly in country’s energy, infrastructure, and Gwadar port expansion. According to the newspaper, The Express Tribune, initial projects worth $15–20 billion will be started which include Lahore-Karachi motorway, Gwadar Port expansion, and...
energy sector projects will be launched in Gadani and six coal projects near Thar coalfield. The newspaper further claimed that the government also handed over to Pakistan Army the task of providing fool-proof security to Chinese officials in Baluchistan, Pakistan in a bid to address Beijing’s concerns and execute the investment plan in the province, which will get 38% of the funds (Fallon, 2015).

3. Foreign direct investment

In 2006, President Musharraf visited China, which became a landmark in Pakistan-China friendship history for private investment. China announces to increase investment in Pakistan from $ 500 million to $12 billion, which would be used to make joint venture companies and private investments.

4. Infrastructure

China Pakistan always seems serious to build the infrastructure for better relations and economic activity. The Karakoram Highway, CPEC, and China’s news dream of one road one billet are few of the major projects which enable both countries to increase the trust for future business and cooperation through better infrastructure.

3. Data analysis and results

For ranking and comparing the matrices, the Analytic Hierarchy Process method was used. The researchers invited 41 respondents to rank the factors. Nine-point scale method was used for ranking. Table 1 shows the associating of i and j, and it clarifies the nine-point scale method. The forthcoming sections describe the criteria of formulating matrices and the analysis techniques, including the reliability of the study.

<table>
<thead>
<tr>
<th>Table 1 Resultant matrix scale and ranking techniques</th>
<th>Judgment scale matrix</th>
<th>Aij</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Rank</td>
<td>i and j are equally important</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>1/3</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>1/5</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>1/7</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>1/9</td>
</tr>
</tbody>
</table>

Source: The authors

3.1. General criteria for formulating the comparing matrix

The respondents have been asked to rank different elements for comparisons with respect to dependent variable “country relations,” and independent variables political relations, social relations and for economic relations. For dependent variable “Country Relations,” there are three compressions; thus, the researchers developed three by three matrixes for country relations. There are six comparisons for political, social, and economic relations. Therefore the researchers have four by four matrices for all these independent variables. Here, the diagonal elements of the matrixes are always 1, and there is a need to fill up the upper triangular matrix only. The following rules are used to fill up the upper triangular matrix i:

The formula to fill:

1. First, we filled the upper side of the matrices.
2. In the second stage, we took the reciprocals of upper side to fill the lower side of matrices.

Reciprocal values of the upper diagonal were used to fill the lower triangular matrix. The following formula was used to fill the matrices:

$$a_{ji} = \frac{1}{a_{ij}}$$

3.2. Ranking the elements for building decision matrices

To draw the decision matrices, the researchers build the average matrices of dependent and independent variables.

3.2.1. Country relations

By the responses collected from 41 respondents, the following matrix was built for country relations

<table>
<thead>
<tr>
<th>Table 2 Matrix for country relations</th>
<th>a</th>
<th>b</th>
<th>c</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Political Relations</td>
<td>1</td>
<td>5 5/6</td>
<td>5 3/5</td>
</tr>
<tr>
<td>b Social Relations</td>
<td>6/55</td>
<td>1</td>
<td>5 2/7</td>
</tr>
<tr>
<td>c Economic Relations</td>
<td>6/53</td>
<td>7/52</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: The authors
- Resultant matrix of Y1, Y2, Y3 concerning X (country relations)

\[
d_1 = \begin{bmatrix}
1 & 55 & 63 \\
6 & 5 & 5 \\
6 & 1 & 7 \\
55 & 6 & 7 \\
6 & 52 & 1
\end{bmatrix}
\]

### 3.2.2. Political actions

By the responses collected from 41 respondents for political relations to build overall country relations, the following matrix was built.

<table>
<thead>
<tr>
<th>Political Actions</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Defence operation</td>
<td>1/5</td>
<td>6</td>
<td>5/5/8</td>
<td></td>
</tr>
<tr>
<td>Country image</td>
<td>5/5</td>
<td>1</td>
<td>5 1/2</td>
<td>5 5/6</td>
</tr>
<tr>
<td>c War on terror</td>
<td>1/6</td>
<td>2/51</td>
<td>1</td>
<td>5 3/4</td>
</tr>
<tr>
<td>d Regional stability</td>
<td>8/5</td>
<td>1/55</td>
<td>4/53</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: The authors

- Resultant matrix of Z11, Z12, Z13, Z14 with respect to Y1 (Political Relations)

\[
d_2 = \begin{bmatrix}
1 & 51 & 5 & 55 \\
5 & 1 & 2 & 6 \\
1 & 2 & 1 & 4 \\
8 & 6 & 4 & 1 \\
51 & 55 & 53 & 1
\end{bmatrix}
\]

### 3.2.3. Social Relations

By the responses collected from 41 respondents for social actions to build country relations via social actions/relations the following matrix was built.

<table>
<thead>
<tr>
<th>Social Actions</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Cultural Exchange</td>
<td>1/5</td>
<td>5 3/5</td>
<td>5 2/5</td>
<td>5 7/9</td>
</tr>
<tr>
<td>b Cooperation in the disaster</td>
<td>5/53</td>
<td>1</td>
<td>5 2/5</td>
<td>4 2/5</td>
</tr>
<tr>
<td>c Education Exchanges</td>
<td>5/52</td>
<td>5/52</td>
<td>1</td>
<td>5 1/5</td>
</tr>
<tr>
<td>d Health Services</td>
<td>3/19</td>
<td>5/42</td>
<td>5/51</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: The authors

- Resultant matrix of Z21, Z22, Z23, Z24 concerning Y2 (Social actions)

\[
d_3 = \begin{bmatrix}
1 & 53 & 52 & 57 \\
5 & 1 & 5 2 & 42 \\
5 & 5 & 1 & 51 \\
42 & 52 & 1 & 5
\end{bmatrix}
\]

### 3.2.4. Economic relations

By the responses collected from 41 respondents for economic actions to build country relations following matrix was built for country relations.

<table>
<thead>
<tr>
<th>Economic actions</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Trade co-operation</td>
<td>1 5 3/5</td>
<td>5 1/2</td>
<td>6 1/8</td>
<td></td>
</tr>
<tr>
<td>b Energy co-operation</td>
<td>5/53</td>
<td>1</td>
<td>6 1/7</td>
<td></td>
</tr>
<tr>
<td>c FDI</td>
<td>2/51</td>
<td>1/6</td>
<td>1</td>
<td>5 2/3</td>
</tr>
<tr>
<td>d Infrastructure</td>
<td>8/61</td>
<td>7/51</td>
<td>3/52</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: The authors

- Resultant matrix of Z31, Z32, Z33, Z34 concerning Y3 (Economic actions)

\[
d_4 = \begin{bmatrix}
1 & 53 & 51 & 61 \\
5 & 1 & 6 & 8 \\
53 & 1 & 6 & 52 \\
2 & 1 & 6 & 52 \\
61 & 51 & 52 & 1
\end{bmatrix}
\]

### 3.3. Reliability

To calculate the ordering vector of every element eigenvectors F corresponding to its maximum distinctive root \(\lambda_{max}\).

1. The equation to measuring the resultant matrix geometric mean of all the elements of each row \(W' = (w'_1, w'_2, w'_3, ..., w'_n)^t = \sum_{i=1}^{n} a_{ij} \) ...

\[
W' = \left( \sum_{i=1}^{n} a_{ij} \right) \cdots \left( \sum_{i=1}^{n} a_{ij} \right)^t
\]
2. For standardization of each element of the vector \(W'W = (w_1, w_2, w_3, ..., w_n)^T\) to affect the country relations via political, economic, and social relations. Table 7, 8, 9 and 10 show the ranking calculated results.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Impact Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic action (Y2)</td>
<td>0.7085</td>
</tr>
<tr>
<td>Political action (Y1)</td>
<td>0.2261</td>
</tr>
<tr>
<td>Social action (Y3)</td>
<td>0.0654</td>
</tr>
</tbody>
</table>

3. Calculation of maximum eigen value \(\lambda_{\text{max}}\) the resultant matrix \(\lambda_{\text{max}}= \frac{1}{n} \sum_{i=1}^{n} (AW_i)^T (AW_i)\) it is the element of vector AW

4. Consistency check index towards resultant matrix validity check

\[
\text{CI} = \frac{\lambda_{\text{max}} - n}{n - 1}
\]

5. For more information and random consistency ratio index

\[
\text{CR} = \frac{\text{CI}}{\text{RI}}
\]

The consistency can be checked through these equations and by using the calculations of Tables 2, 3, 4 and 5. The matrix will be consistent and valid if \(\text{CR} < 0.10\). The following Random Consistency Index 1 in Table 6, also depicts the differences conferring to the various orders of the matrix. In this study, the comparison matrix was put into Matlab to see how different is the result of numerical computation of Eigen value and Eigen vector compared to this study results. Following with AHP method, the researchers measured the consistency ratio values for every judgment matrix, which were: 0.0986, 0.0787, 0.0984, and 0.891. All these values are below 0.1. This confirms that all judgment matrices fulfill the consistency check, and results are reliable for further decision making.

<table>
<thead>
<tr>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI</td>
<td>0</td>
<td>0</td>
<td>0.6</td>
<td>1</td>
<td>1.1</td>
<td>1.2</td>
<td>1.3</td>
<td>1.4</td>
<td>1.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

3.4. Positioning the factors

By compiling the survey results and computed results, the factors are ranked which are supposed to affect the country relations via political, economic, and social relations. Table 7, 8, 9 and 10 show the ranking calculated results.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Impact Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defence Co-operation</td>
<td>0.5774</td>
</tr>
<tr>
<td>Country image</td>
<td>0.2459</td>
</tr>
<tr>
<td>War on Terror</td>
<td>0.1295</td>
</tr>
<tr>
<td>Regional Stability</td>
<td>0.0471</td>
</tr>
<tr>
<td>Defence Co-operation</td>
<td>0.5774</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factors</th>
<th>Impact Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Exchange</td>
<td>0.5923</td>
</tr>
<tr>
<td>Cooperation in the disaster</td>
<td>0.2350</td>
</tr>
<tr>
<td>Education Exchanges</td>
<td>0.1216</td>
</tr>
<tr>
<td>Health Services</td>
<td>0.0510</td>
</tr>
<tr>
<td>Cultural Exchange</td>
<td>0.5923</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factors</th>
<th>Impact Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Co-operation</td>
<td>0.5962</td>
</tr>
<tr>
<td>Energy Co-operation</td>
<td>0.2449</td>
</tr>
<tr>
<td>FDI</td>
<td>0.1129</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>0.0460</td>
</tr>
</tbody>
</table>

3.5. Mathematical equation for measuring country relations in President Xi’s visit

Based on the impact values and the levels of the factors the country relations calculation mathematical equation was composed as:

Set \(t^31 = 1, 2, \ldots, 14\) is the final points for fourteen factors.

\[
w_{ij}^2, w_{ij}^1 (i = 1, 2, \ldots, m; j = 1, 2, \ldots, n)
\]

Through this formula the relative impact value of \(i\) in the middle or lowest level compare to \(i\) in this
level, \(m, n\); is the total number of factors in this and its bellow level, then the score of \(k\)-th level relative to \((k + 1)\) the level can be computed as:

\[
I_i^k = \sum_{j=1}^{n} w_{ij}^{k+1} I_j^{k+1} \quad (k = 3, 2, 1; i = 1, 2, 3, \ldots, m)
\]

After calculating \(t_i\) in every level, the following model can be used as measure for the country relations in the president’s trip

\[
W = \frac{1}{10} \sum_{i=1}^{3} t_i^1 \times 100\%
\]

Here \(t_1^1, t_2^2, t_3^3\) are stands for ranking values for economic actions \(Y_1\), political actions \(Y_2\), and social actions \(Y_3\) relative to country relations in president Xi’s visit. The \(W\) is the total score of country relations in the specified visit.

**Conclusions**

Now, it is possible to measure country relations through the quantitative way, which was previously estimated by qualitative techniques. In this study, the ranking and weights of the matrices show that during Xi’s visit to Pakistan in 2015, the significant contributions towards China Pakistan relations were more economical (Table 8 results). The same results can also be seen in the literature, where researchers described that China-Pakistan relations are more economical (0.70%) than political (0.22%) or social (0.06%). The study conducted by Jian and Rashid who show that the relations seem to be more economical in the history and the trade provides China access to a new market for its goods and a foreign investment opportunity for Pakistan (Jian and Rashid 2011). In January 2000 Pakistan’s Chief executive General Pervez Musharraf’s visit to China and in 2001 Chinese primer Zhou Rongji’s visit to Pakistan were also concluded with the bilateral economic relations. On April 2005, Chinese Premier Wen Jiabao’s visited Pakistan and signed twenty-one agreements to promote close trade, and economic ties also show the industrial relations of both countries. In 2009, the President of Pakistan Asif Ali Zardari’s visit to Chinese provinces Hangzhou and Guangzhou and signing a Memorandum of Understanding for cooperation in the field of fisheries (economic relations) also supported the results of this study. In 2014 and 2015 several visits to both countries also highlight the economic cooperation. Thus, this study contributes to the literature in the sense that it provides a mathematical and statistical equation to measure the factors contributing to country relations in any country head/delegation visit to any other country. Future studies may include some other factors besides political, economic, and social actions to measure the country relations quantitatively.

**References**


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Email: sajjad@shu.edu.cn
Manuscript Requirements

A paper must be written in text processor Microsoft Word. Paper size: A4. Margins: 3.0 cm on top and bottom, and 2.5 cm on left and right sides. As a guide, articles should be no more than 5,000 words in length. In case the paper exceeds the normal length, the Editors' consent for its publication is needed. Articles submitted for publication in Journal should include the research aim and tasks, with detailed methodology, presenting literature overview on the research object, substantiation of the achieved results and findings, conclusions and a list of references. Manuscripts should be arranged in the following order of presentation.

First page: Title (no more that 10 words), subtitle (if any), autobiographical note (the author's full name, academic affiliation, telephone, fax and e-mail address and full international contact). Respective affiliations and addresses of co-authors should be clearly indicated. Please also include approximately 50 words of biographical information on each author of the submitted paper.

Second page:
- A self-contained abstract/summary/resume of up to 150 words, describing the research objective and its conclusions
- Up to ten keywords, which encapsulate the principal subjects covered by the article; and
- A self-contained summary of up to 200 words, describing the article and its conclusions.

Subsequent pages: Main body of the text with headings, footnotes, a list of references, appendices, tables and illustrations. The paragraph parameters are:
- Font: Times New Roman, 10 pt, regular
- Spacing: Before: 0, After: 0
- Line Spacing: Single
- Alignment: Justified
- Indentation: Left: 0, Right: 0, Special: 0.
- Style: Normal (not Title, Heading1, Heading2,...,Body Text, etc!)

Leave an empty line between paragraphs.

Headings: Headings must be short, clearly defined and numbered, except for Introduction and Conclusions. Apply at most three levels of headings. Please, leave two empty lines before headings and one empty line after. Font: Times New Roman, bold, 16 pt, centered.

Section headings should be in bold with Leading Capitals on Main Words, Times New Roman, 14pt, bold, centered.

Sub-section headings should be in italics, with Leading Capitals on Main Words, Times New Roman, 12 pt, bold.

All tables, graphs and diagrams are expected to back your research findings. They should be clearly referred to and numbered consecutively in Arabic numerals. They should be placed in the text at the appropriate paragraph (just after its reference).

Tables should be centered. All tables must have captions. The title of your table should follow the table number. Tables should not be wider than the margins of the paper. Skip two lines before and after each table.

Figures should be centered. All figures must have captions. The title of figures should appear immediately below the figure. The title of the figure should follow the figure number. Figures should not be wider than the margins of the paper. Skip two lines before and after each figure. Figures will not be redrawn by the publisher. Figures should be high-quality grayscale graphics (please, do not use colors): vector drawings (with text converted to curves) or 300 dpi bitmaps. Please do not supply any graphics copied from a website, as the resolution will be too low. In all figures taken or adapted from other sources, a brief note to that effect is obligatory, below the figure. One sentence at least referring to the illustration is obligatory.

Mathematical expressions should be numbered on the right side, while all variables and parameters must be defined.
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Authors are responsible for ensuring that all manuscripts (whether original or revised) are accurately typed before final submission. One set of proof will be sent to authors, if requested, before the final publication, which must be returned promptly.

Referencing Guide
The references should specify the source (such as book, journal article or a web page) in sufficient detail to enable the readers to identify and consult it. The references are placed at the end of the work, with sources listed alphabetically (a) by authors’ surnames or (b) by the titles of the sources (if the author is unknown). Multiple entries by the same author(s) must be sequenced chronologically, starting from the earliest, e.g.:


Here is a list of the most common reference types:

A. PERIODICALS
Authors must be listed by their last names, followed by initials. Publication year must be written in parentheses, followed by a full stop. Title of the article must be in sentences case: only the first word and proper nouns in the title are capitalized. The periodical title must be in title case, followed by the volume number, which is also italicized:


Journal article, one author, paginated by issue
Journals paginated by issue begin with page 1 in every issue, so that the issue number is indicated in parentheses after the volume. The parentheses and issue numbers are not italicized, e.g.


Journal article, one author, paginated by volume
Journals paginated by volume begin with page 1 in issue 1, and continue page numbering in issue 2 where issue 1 ended, e.g.

Journal article, two authors, paginated by issue

Journal article, two authors, paginated by volume

Journal article, three to six authors, paginated by issue

Journal article, three to six authors, paginated by volume

Journal article, more than six authors, paginated by issue

Journal article, more than six authors, paginated by volume

Magazine article

Newsletter article with author

Newsletter article without author

B. BOOKS, BROCHURES, BOOK CHAPTERS, ENCYCLOPEDIA ENTRIES, AND BOOK REVIEWS

Basic format for books

*Author, A. A. (Year of publication). Title of work: Capital letter also for subtitle. Location: Publisher.*

Note: “Location” always refers to the town/city, but you should also include the state/country if the town/city could be mistaken for one in another country.

Book, one author

Book, one author, new edition

Book, two authors

Book, three to six authors

Book, more than six authors

Book, no author or editor

Group, corporate, or government author

Edited book

Chapter in an edited book

Encyclopedia entry

C. UNPUBLISHED WORKS

Paper presented at a meeting or a conference

Paper or manuscript
Doctoral dissertation

Master's thesis

D. ELECTRONIC MEDIA

The same guidelines apply for online articles as for printed articles. All the information that the online host makes available must be listed, including an issue number in parentheses:


Article in an internet-only journal

Document from an organization

Article from an online periodical with DOI assigned

Article from an online periodical without DOI assigned
Online journal articles without a DOI require a URL.


REFERENCE QUOTATIONS IN THE TEXT

Quotations
If a work is directly quoted from, then the author, year of publication and the page reference (preceded by “p.”) must be included. The quotation is introduced with an introductory phrase including the author’s last name followed by publication date in parentheses.

According to Mirković (2001), “The use of data warehouses may be limited, especially if they contain confidential data” (p. 201).
Mirković (2001), found that “the use of data warehouses may be limited” (p. 201). What unexpected impact does this have on the range of availability?

If the author is not named in the introductory phrase, the author's last name, publication year, and the page number in parentheses must be placed at the end of the quotation, e.g.

He stated, “The use of data warehouses may be limited,” but he did not fully explain the possible impact (Mirković, 2001, p. 201).

**Summary or paraphrase**

According to Mirković (1991), limitations on the use of databases can be external and software-based, or temporary and even discretion-based. (p.201)

Limitations on the use of databases can be external and software-based, or temporary and even discretion-based (Mirković, 1991, p. 201).

**One author**

Boškov (2005) compared the access range...

In an early study of access range (Boškov, 2005), it was found...

**When there are two authors**, both names are always cited:

Another study (Mirković & Boškov, 2006) concluded that...

**If there are three to five authors**, all authors must be cited the first time. For subsequent references, the first author’s name will cited, followed by “et al.”.

(Jovanov, Boškov, Perić, Boškov, & Strakić, 2004).

In subsequent citations, only the first author’s name is used, followed by “et al.” in the introductory phrase or in parentheses:

According to Jovanov et al. (2004), further occurrences of the phenomenon tend to receive a much wider media coverage.

Further occurrences of the phenomenon tend to receive a much wider media coverage (Jovanov et al., 2004).

In “et al.”, “et” is not followed by a full stop.

**Six or more authors**

The first author’s last name followed by "et al." is used in the introductory phrase or in parentheses:

Yossarian et al. (2004) argued that...

… not relevant (Yossarian et al., 2001).
**Unknown author**

If the work does not have an author, the source is cited by its title in the introductory phrase, or the first 1-2 words are placed in the parentheses. Book and report titles must be italicized or underlined, while titles of articles and chapters are placed in quotation marks:

A similar survey was conducted on a number of organizations employing database managers ("Limiting database access", 2005).

If work (such as a newspaper editorial) has no author, the first few words of the title are cited, followed by the year:

(“The Objectives of Access Delegation,” 2007)

**Note:** In the rare cases when the word "Anonymous" is used for the author, it is treated as the author's name (Anonymous, 2008). The name Anonymous must then be used as the author in the reference list.

**Organization as an Author**

If the author is an organization or a government agency, the organization must be mentioned in the introductory phrase or in the parenthetical citation the first time the source is cited:

According to the Statistical Office of the Republic of Serbia (1978), …

Also, the full name of corporate authors must be listed in the first reference, with an abbreviation in brackets. The abbreviated name will then be used for subsequent references:

The overview is limited to towns with 10,000 inhabitants and up (Statistical Office of the Republic of Serbia [SORS], 1978).

The list does not include schools that were listed as closed down in the previous statistical overview (SORS, 1978).

**When citing more than one reference from the same author:**

(Bezjak, 1999, 2002)

**When several used works by the same author were published in the same year,** they must be cited adding a, b, c, and so on, to the publication date:

(Griffith, 2002a, 2002b, 2004)

**Two or more works in the same parentheses**

When two or more works are cited parenthetically, they must be cited in the same order as they appear in the reference list, separated by a semicolon.

(Bezjak, 1999; Griffith, 2004)

**Two or more works by the same author in the same year**

If two or more sources used in the submission were published by the same author in the same year, the entries in the reference list must be ordered using lower-case letters (a, b, c…) with the year. Lower-case letters will also be used with the year in the in-text citation as well:

Survey results published in Theissen (2004a) show that…
To **credit an author for discovering a work**, when you have not read the original:

Bergson’s research (as cited in Mirković & Boškov, 2006)…

Here, Mirković & Boškov (2006) will appear in the reference list, while Bergson will not.

When **citing more than one author**, the authors must be listed alphabetically:

(Britten, 2001; Sturlason, 2002; Wasserwandt, 1997)

When there is **no publication date**:

(Hessenberg, n.d.)

**Page numbers must always be given for quotations:**

(Mirković & Boškov, 2006, p.12)

Mirković & Boškov (2006, p. 12) propose the approach by which “the initial viewpoint…

**Referring to a specific part of a work:**

(Theissen, 2004a, chap. 3)

(Keaton, 1997, pp. 85-94)

**Personal communications, including interviews, letters, memos, e-mails, and telephone conversations**, are cited as below. (These are **not** included in the reference list.)

(K. Ljubojević, personal communication, May 5, 2008).

**FOOTNOTES AND ENDNOTES**

A few footnotes may be necessary when elaborating on an issue raised in the text, adding something that is in indirect connection, or providing supplementary technical information. Footnotes and endnotes are numbered with superscript Arabic numerals at the end of the sentence, like this.¹ Endnotes begin on a separate page, after the end of the text. However, Strategic Management journal **does not recommend the use of footnotes or endnotes**.

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