Examining Diversity and Team Satisfaction: A Quantitative Analysis in Czech Urban and Rural Contexts

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ABSTRACT

The historical evolution of the Czech Republic reveals significant regional disparities in cultural, social, occupational, and recreational activities, among others. Taking into account the varied ages, social backgrounds, residences, and ethnicities of individuals within the region, the study formulated a null hypothesis: women residing in smaller cities experience higher satisfaction within teams compared to individuals in larger cities aged over 45. The study’s contribution lies in comparing satisfaction levels with team affiliation across regional, gender, and age variations, within the context of urban size. An original contribution of the study is its research applied to diverse teams focusing on work performance, sports, and leisure activities, where varying degrees of collectively and individuality are present. The research was conducted on 113 respondents from five cities in the Czech Republic, spanning across ten teams. These teams, ranging from sports-oriented to work-related, were situated in two major cities, Prague and Brno, as well as three smaller towns: Šumperk, Hustopeče, and Otrokovice. Respondents included both women and men aged between 25 and 68 years. Data collected from the questionnaire survey underwent analysis using the Kruskal-Wallis test, ultimately refuting the null hypothesis. The research took place throughout the year 2022, employing both paper-based and online surveys, the latter facilitated through the Survio platform. Survey questions, grounded in an understanding of regional disparities, were designed to enable confirmation or rejection of the null hypothesis. The null hypothesis has been confirmed.

Keywords: age; disparity; diversity; regional inequalities; teams
INTRODUCTION

Disparities refer to inequalities or deviations primarily resulting from the development of the society under study. However, the term ‘disparity’ can also be interpreted in various ways. The inconsistency in its terminological anchoring allows for broader definitions, informed by new findings and developments. The Organisation for Economic Co-operation and Development (OECD) characterizes disparity as the extent to which a region is distinguishable, categorizing it into economic, social, and territorial disparities (OECD, 2003). In the context of this research, social disparities are of particular significance, defined as differences in the quality and quantity of human capital’s state and progress, predominantly reflected in income levels and the general standard of living.

These regional disparities present significant challenges for all European Union Member States, influencing them economically, politically, and socially. Dynamic changes have altered the perception and understanding of regional policy. Resulting regional disparities can influence not only economic advancement but also social cohesion and, ultimately, political stability in Europe, affecting both developed and developing countries (Iammarino et al., 2018). However, increasing inequalities between regions cannot be unequivocally labeled as either positive or negative (Zali et al., 2013). From a terminological perspective, it is therefore imperative to define various concepts associated with regional policy and inequality.

In this context, regional policy, inequality, and disparities are key elements in the economic policymaking of Member States. These concepts not only influence economic decisions but also have implications for other related areas such as competitiveness, social policy, and interaction. Reducing regional disparities and enhancing economic competitiveness are key goals of the European Union’s current policy framework. In the context of regional disparities, competitiveness is a crucial factor, especially in relation to labor market opportunities for individuals (Vrtěnová et al., 2009). However, Kaderábková (2007) posits that the quality of life and economic efficiency are also vital components that contribute to competitiveness within the context of regional disparities. From a macroeconomic viewpoint, there is debate over whether growth exacerbates regional disparities, as some studies suggest, or, as Kuznets (1955) argued, whether disparities initially increase during early development stages and then diminish over time. This subject has also been explored by neoclassical economists who, drawing on the convergence theory, contend that nations with similar economic characteristics tend to converge (Kumari, et al., 2023).

Regional policy can thus be viewed as an instrument for intervening in the economic and social development within a country. Factors such as political will, historical progression, and the role of the state are significant in shaping regional policy. In the Czech Republic, since 1990, this policy has primarily involved the redistribution and reallocation of resources. However, the lack of sophisticated policy approaches has also led to several negative outcomes, including the creation of new peripheral zones, higher unemployment rates, and low interregional mobility (Šabic & Vujadinovic, 2017).

The issues of disparities, regional policies, and differences, dynamics of effect of teams in various sectors. Teams, whether in sports, work, or other domains, exhibit fluctuations in potential, effectiveness, and success over time (Salas et al., 2008). Despite sharing common values and goals,
various factors influence a team’s success, including communication, team structure, territorial context, the definition of team activities within a specific locale, and regional opportunities, which can significantly vary (McEwan & Beauchamp, 2014). It is pertinent to note that success metrics differ across domains: for elite sports teams, success is primarily measured by results, whereas for work teams, goal achievement may be influenced by benefits, financial rewards, etc. The role of support teams is crucial in facilitating success in both contexts (Dijkstra et al., 2014). Additionally, regional differences are a significant factor shaping current European policy frameworks.

In the domain of work teams, particularly those engaged in creative processes, empirical research has underscored the significance of team composition in fostering creativity. The study by Zhang et al. (2019) elucidated a correlation between the openness of team members to diverse experiences and the consequent enhancement of team creativity. This creativity manifests in the ideation and collaborative development of concepts. Analogously, within the sphere of sports teams, the demographic composition, notably age, emerges as a pivotal factor. The suitability of certain sports activities for older participants is constrained by various factors, including health considerations, a decline in pace, and an elevated risk of injuries, as delineated in the research by Fagerholm et al. (2015) and Graziotin et al. (2018).

This issue is also related to the sporting discipline, which encompasses a range of physical and exercise practices and has evolved to hold a prominent position in social history. This evolution signifies not only its relevance to individuals who are typically healthy but also its inclusivity of those with health limitations or disabilities, as expounded by Marcellini (2018). As per the analyses by Cruickshank and Collins (2012), the historical trajectory of sports and free-time activities has witnessed an augmentation in their accessibility and pertinence, extending beyond personal enrichment to professional realms. In contemporary contexts, these activities constitute a fundamental component of the opportunities and benefits offered within organizational settings, as well as in the leisure pursuits of individuals outside their professional environments. In the sphere of sports, these dynamics acquire additional complexity owing to the intrinsic emotional elements of competitive environments. Van Kleef et. al. (2019) asserts that sports encounters are ‘inherently emotional situations’, highlighting a research lacuna regarding the influence of emotional expressions, especially from those in leadership roles, on team performance in sporting contexts. Pursuing this line of inquiry, Gerben’s study examines the specific effects of emotional expressions by sports coaches on their teams’ performance and cognitive states. The research outcomes indicate that positive emotional expressions from a coach, in contrast to negative ones such as anger, substantially elevate team performance. This revelation accentuates the critical significance of emotional dynamics in sports coaching, underscoring the notion that these emotional expressions are as pivotal as the physical and strategic aspects of sports.

Consequently, the functionality of teams, irrespective of whether they operate in professional or sports settings, is influenced not solely by their composite diversity but also significantly by the emotional interplay and expressions within the team, particularly those emanating from individuals in leadership roles. This intricate interrelationship between team composition, diversity, and emotional dynamics constitutes a complex framework that is essential for a comprehensive understanding and enhancement of team performance across various sectors.
METHOD

The objective of this research is to unveil regional differences in sports, work, and leisure activities across the Czech Republic. The hypothesis posits that women from smaller cities experience greater satisfaction within teams than those from larger cities who are over the age of 45. To explore this, 113 respondents from ten teams across five cities were surveyed (see Table 1). These teams, related to both sports and work, were located in two major cities, Prague and Brno, as well as three smaller towns: Šumperk, Hustopeče, and Otrokovice. For analytical purposes, ages were categorized as follows: category no. 1 for 18-25 years old, category no. 2 for 26-35 years old, category no. 3 for 36-44 years old, and category no. 4 for those older than 45 years, aligning with the actual age range of participants. The collected data underwent analysis via the Kruskal-Wallis test. For an in-depth look at the questionnaire content, please see the annex attached to this article.

Table 1. Sample of respondents

<table>
<thead>
<tr>
<th>Place of Residence</th>
<th>Age of Respondents</th>
<th>Type of Team</th>
<th>Gender</th>
<th>Team</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prague</td>
<td>10x category no. 1, 12x category no. 4, 13x category no. 3</td>
<td>work team-services</td>
<td>16 x male, 19 x female</td>
<td>1</td>
<td>35</td>
</tr>
<tr>
<td>Brno</td>
<td>6x category no. 1, 4x category no. 2, 1x category no. 3, 1x category no. 4</td>
<td>sport team-volleyball</td>
<td>9x male, 3x female</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Šumperk</td>
<td>4x category no. 1</td>
<td>freetime activities - horse riding</td>
<td>3 x female, 1x male</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Hustopeče</td>
<td>5x category no. 1, 4x category no. 3, 6x category no. 3, 3x category no. 4</td>
<td>work team-services</td>
<td>12x male, 6x female</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>Otrokovice</td>
<td>9x category 3</td>
<td>sport team-aerobic</td>
<td>9x female</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Prague</td>
<td>10x category 2, 1x category no. 2</td>
<td>sport team-CrossFit</td>
<td>8x male, 3x female</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Prague</td>
<td>4x category 2, 1x category no. 3</td>
<td>work team-services</td>
<td>4x male, 1x female</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Otrokovice</td>
<td>8x category no. 2</td>
<td>free time activities-ceramics</td>
<td>8x female</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Šumperk</td>
<td>1x category no. 1, 2x category no. 2, 2x category no. 4</td>
<td>work team-health care</td>
<td>3x female, 2x male</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Brno</td>
<td>2x category no. 3, 4x category no. 4</td>
<td>work team-accommodation services</td>
<td>2x male, 4x female</td>
<td>10</td>
<td>6</td>
</tr>
</tbody>
</table>
**Primary research**

In this study, the primary data were categorical, with variables coded as binary (0 or 1) or scaled, which precludes the assumption of normality typically required for the Analysis of Variance (ANOVA) method. Given the non-continuous nature of the data, a non-parametric alternative was necessary. The Kruskal-Wallis test, which is well-suited for analysing differences across multiple groups without assuming a normal distribution of the variables, was selected for this purpose. This test is particularly effective for examining binary or scaled data where normality cannot be expected. The significance level for the analysis was set at 5%, adhering to standard practices in statistical analysis. Under this framework, the null hypothesis formulated for the study posits that there is no significant difference in team satisfaction between women from smaller cities and individuals from larger cities who are over the age of 45. This hypothesis directly addresses the research objective to explore regional differences in team satisfaction, particularly as they relate to age and city size.

The data collection instrument was a questionnaire survey comprising 8 open-type questions and 2 closed selection questions. The open questions were designed to elicit detailed responses regarding participants' experiences and perceptions of team satisfaction, while the closed questions aimed to gather specific, quantifiable data relevant to the study's hypothesis. A p-value greater than 0.05 in the Kruskal-Wallis test analysis will lead to the acceptance of the null hypothesis, indicating that the observed differences in team satisfaction are not statistically significant at the 5% level. Conversely, a p-value less than or equal to 0.05 will suggest significant differences in team satisfaction between the groups under study, thereby leading to the rejection of the null hypothesis.

**Secondary research**

Secondary research investigates the issue of regional differences and disparities, focusing specifically on their impact on team dynamics and composition.

**RESULTS**

The objective of this research was to uncover regional differences in sports, work, and leisure activities in the Czech Republic. As previously stated, the hypothesis was formulated as follows: women from smaller towns experience greater satisfaction in teams compared to individuals from larger cities over the age of 45. For the purposes of this study, a total of 113 respondents from five cities encompassing ten teams were surveyed. These teams, both sports-related and work-related, were located in two major cities, Prague and Brno, and three smaller towns, Šumperk, Hustopeče, and Otrokovice. Respondents, including both women and men, ranged in age from 18 to 68 years. Data collected through the questionnaire were analyzed using the Kruskal-Wallis test. For a detailed overview of the questions included in the questionnaire, please refer to the annex to the article.

The analysis results indicate that null hypotheses were rejected for several questions, particularly regarding respondents' age distribution and satisfaction, suggesting statistically significant differences in age distribution among work team members based on satisfaction. Specifically:

- The null hypothesis regarding the same gender distribution across team categories was confirmed.
• The null hypothesis regarding the same age distribution across team categories was rejected, indicating significant differences in age distribution among team members based on their satisfaction.
• The null hypothesis regarding the same team composition across team categories was confirmed.
• The null hypothesis regarding the same team composition across team categories was rejected, suggesting significant differences in age distribution among team members.
• The null hypothesis regarding the same team composition across team categories was rejected, indicating significant differences in age distribution among team members.
• The null hypothesis regarding the same team composition across team categories was confirmed.
• The null hypothesis regarding the same team composition across team categories was confirmed.

From this, it follows that the age distribution in teams significantly affects team members’ satisfaction and their perception of differences across teams. (The information provided in the summary Table 2 below)

Table 2. Summary of Hypotheses Tested: Kruskal-Wallis Test Null Hypothesis

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Test Used</th>
<th>Significance (Sig a,b)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Q1 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.209</td>
</tr>
<tr>
<td>2</td>
<td>The Q2 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.005</td>
</tr>
<tr>
<td>3</td>
<td>The Q3 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>1.000</td>
</tr>
<tr>
<td>4</td>
<td>The Q4 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.016</td>
</tr>
<tr>
<td>5</td>
<td>The Q5 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.000</td>
</tr>
<tr>
<td>6</td>
<td>The Q6 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.678</td>
</tr>
<tr>
<td>7</td>
<td>The Q7 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.274</td>
</tr>
<tr>
<td>8</td>
<td>The Q8 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.011</td>
</tr>
<tr>
<td>9</td>
<td>The Q9 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.547</td>
</tr>
<tr>
<td>10</td>
<td>The Q10 layout is the same across T categories.</td>
<td>Independent samples of the Kruskal-Wallis test</td>
<td>.614</td>
</tr>
</tbody>
</table>
As the null hypotheses were rejected based on their lower significance values of 5%, the results indicate statistically significant differences in age distribution among respondents of specified work teams, particularly concerning the relationship between age and satisfaction. Each row in the analysis tests the null hypothesis that the distribution in Table 1 is identical to that in Table 2, with a significance level set at 0.050. The significance values were adjusted using the Bonferroni correction, a standard procedure in multi-hypothesis testing. This approach involves rejecting the null hypothesis if its p-value is less than or equal to \( \alpha/m \), where \( \alpha \) represents the predetermined level of significance (typically 0.05 or 0.01), and \( m \) is the number of simultaneous tests conducted. ‘Sig.’ is an abbreviation for ‘significance’ in these tests. Given these results, the null hypothesis is rejected, and it is evident that, based on the age-related responses, the null hypothesis is not universally applicable.

**Table 3.** The demonstration of team differences

<table>
<thead>
<tr>
<th>P-value</th>
<th>Question Number</th>
<th>Question Wording</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.209</td>
<td>Q1</td>
<td>Are you male, female, or non-binary?</td>
</tr>
<tr>
<td>0.005</td>
<td>Q2</td>
<td>What is your age?</td>
</tr>
<tr>
<td>1.000</td>
<td>Q3</td>
<td>What team are you a member of?</td>
</tr>
<tr>
<td>0.016</td>
<td>Q4</td>
<td>What is the composition of your team?</td>
</tr>
<tr>
<td>0.000</td>
<td>Q5</td>
<td>What is the age composition of your team? Are there any issues arising from age differences among its members? If so, in what situations do they occur?</td>
</tr>
<tr>
<td>0.678</td>
<td>Q6</td>
<td>Do you believe having team members from different age groups is advantageous?</td>
</tr>
<tr>
<td>0.274</td>
<td>Q7</td>
<td>Does your team consist of individuals from diverse ethnicities, religions, etc.? What is your perspective on this diversity? Do you find these members inspiring or beneficial to the team?</td>
</tr>
<tr>
<td>0.011</td>
<td>Q8</td>
<td>Do you have team members from various regions of the country? Are some from significantly larger or smaller cities compared to yours? Do you observe any disparities in their approach or problem-solving within the team?</td>
</tr>
<tr>
<td>0.547</td>
<td>Q9</td>
<td>What aspect motivates you the most within the team? Is it diversity, solidarity, or something else?</td>
</tr>
<tr>
<td>0.614</td>
<td>Q10</td>
<td>How would you evaluate your team’s ability to address regional, age, and other differences?</td>
</tr>
</tbody>
</table>

To assess differences in team satisfaction and confirm or reject the null hypothesis that women over 45 are more satisfied in work teams in small towns than in large cities, responses from women in both settings within the specified age category were examined (see Table 3 above). The sample comprised 14 women: 6 from Prague and 3 from Brno representing the over 45 age group and residing in large cities, while 5 women from small towns were included 3 from Hustopeče and 2 from Šumperk. Notably, 100% of women from small towns reported satisfaction with their teams and a strong sense of belonging. They embraced cultural, age, and religious differences,
integrating them into their lives and finding them enriching. Conversely, among women in the same age category from large cities, 7 out of 9 indicated that they did not perceive such integration, preferring to separate their private and team spheres. One participant expressed dissatisfaction with team management, particularly regarding age differences among members and a perceived lack of initiative in solving unforeseen problems by younger team members. These findings confirm the null hypothesis.

DISCUSSION

Incorporating the analysis results enriches our discussion by revealing the nuanced influence of age distribution on team satisfaction, thereby underlining age diversity as a crucial consideration in both organizational and regional policy development. This emphasis on age diversity highlights its significant impact on team dynamics, cohesion, and overall satisfaction, pointing towards a notable variance in satisfaction levels based on age. This underscores the importance for organizations to strategically incorporate age diversity into their team management practices, suggesting a pivotal role for age diversity in fostering effective team environments (Żarczyńska-Dobiesz & Chomątowska, 2016).

While the study found that gender distribution did not markedly affect team satisfaction, the consistent rejection of null hypotheses concerning age distribution accentuates the essential role of age diversity within teams. The dynamics of age-diverse teams, depending on management practices, can significantly influence satisfaction levels, highlighting the importance of considering age diversity in team formation and development strategies. These insights are particularly relevant in the context of increased economic polarization and regional disparities, which have been further magnified by the challenges posed by the Covid-19 pandemic (Šabic & Vujadinovic, 2017). The investigation into regional differences in activities across the Czech Republic, with a specific focus on women’s satisfaction in smaller towns versus larger cities, adds an important dimension to our understanding of team satisfaction. This aspect of the research, particularly concerning women over the age of 45, reveals how regional and demographic factors intricately affect team dynamics and satisfaction (European Council, 2020).

In this context, it is appropriate to mention that Covid-19 pandemic has not only highlighted existing regional disparities but also underscored the urgent need for adaptive regional policies capable of mitigating the economic and social challenges of our times. This period has spotlighted the necessity for policies that are responsive to rapid technological, work, and social environment changes. The increasing generational diversity within the workforce presents opportunities for innovation and growth while posing challenges for team cohesion and management. This diversity, reflecting a broad spectrum of perspectives, values, and experiences, significantly influences various domains, thereby shaping the economic, cultural, and political landscapes globally (OECD, 2003; Iammarino et al., 2018). In the realm of policy implications, the case of the Czech Republic’s regional policy since 1990 serves as a cautionary tale of well-intentioned initiatives that inadvertently led to the creation of peripheral zones, illustrating the complex nature of policy impacts (European Council, 2020; Hudecz et al., 2020). On the organizational front, the discussion extends to how
contemporary corporations are navigating team diversity. The example of Norway’s legislative approach to gender representation in the workforce exemplifies proactive measures aimed at addressing diversity imbalances. Such policies not only promote a more equitable society but also enhance organizational efficacy by leveraging diverse perspectives and experiences (Karimi & Busolo, 2019).

CONCLUSION

The findings from this study offer insightful perspectives on the dynamics of team satisfaction and composition, particularly with respect to age distribution. Through the meticulous application of the Kruskal-Wallis test to analyse the responses of 113 individuals from diverse work and sports teams across the Czech Republic, this research has elucidated the nuanced relationship between team member satisfaction and various demographic factors. Key observations from analysis include the rejection of several null hypotheses, notably those concerning the uniformity of age distribution within teams and its impact on team satisfaction. Contrary to initial assumptions, age distribution among team members demonstrated a statistically significant effect on their satisfaction levels. This variation underscores the complexity of team dynamics and the importance of considering age diversity in team management and organization strategies.

The confirmation of the null hypothesis regarding gender distribution suggests that gender does not play a significant role in team composition across the examined categories. Similarly, while some hypotheses related to team composition were confirmed, indicating no significant differences in certain aspects, others were rejected. These rejections highlight significant disparities in age distribution within teams, pointing to age as a critical factor influencing team cohesion and satisfaction. Based on the conducted research and the presented results, it is recommended that future studies should expand their sample and include a larger and more representative group of respondents beyond the original 113 participants. For a thorough validation of the results, it is necessary to expand the sample of respondents and supplement it with in-depth interviews. The data that has been processed and is available only indicates differences in a small sample. It will be interesting and more informative to test the hypothesis on a sample of 500 respondents and greater variability within sports, work, and leisure teams. This approach will not only validate the findings from this initial study but also provide a more comprehensive understanding of the factors influencing team satisfaction across different settings.

The research aimed to uncover regional differences in sports, work, and leisure activities, with a specific focus on gender and age satisfaction within team settings. The study, covering a broad age range of respondents from both major cities and smaller towns, reveals that age distribution significantly impacts team members’ satisfaction. This is particularly evident in the responses from women over 45, where those from smaller towns reported higher satisfaction levels compared to their counterparts in larger cities. This suggests that smaller town teams may offer a more inclusive and satisfying environment for older team members, potentially due to closer community ties or differing team dynamics. In summary, the findings of this research indicate that age diversity within teams is a pivotal factor influencing member satisfaction, with significant variations observed across
different team categories. These findings underscore the significance of considering demographic characteristics in the formation and management of teams, particularly in diverse and dynamic settings such as the workplace and sports. Future research should explore the mechanisms through which age diversity impacts team dynamics and identify strategies to harness its benefits, thereby enhancing team cohesion, performance, and satisfaction across various contexts.

REFERENCES


ANNEX – A QUESTIONNAIRE STRUCTURE

Q1 – Are you male, female, or non-binary?
Q2 – What is your age?
Q3 – What team are you a member of?
Q4 – What is the composition of your team?
Q5 – What is the age composition of your team? Are there any issues arising from age differences among its members? If so, in what situations do they occur?
Q6 – Do you believe having team members from different age groups is advantageous?
Q7 – Does your team consist of individuals from diverse ethnicities, religions, etc.? What is your perspective on this diversity? Do you find these members inspiring or beneficial to the team?
Q8 – Do you have team members from various regions of the country? Are some from significantly larger or smaller cities compared to yours? Do you observe any disparities in their approach or problem-solving within the team?
Q9 – What aspect motivates you the most within the team? Is it diversity, solidarity, or something else?
Q10 – How would you evaluate your team’s ability to address regional, age, and other differences?

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