Jelena Lukić Nikolić¹ Ivana Ostojić² Sunčica Antić

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Perceptions of pressure and stress among agile team members: Empirical insights from Serbia

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Abstract: This paper investigates the perceptions of pressure and stress among agile team members, focusing on various factors, such as personal characteristics, team composition, and communication practices. Empirical research was conducted by using an online questionnaire from April to October 2024. During this time, 110 agile team members from Serbian software development companies took part in the research. Hypothesis testing, including the Mann-Whitney U-test and Kruskal-Wallis H-test, indicated no statistically significant differences by gender, age, team membership length, team size, company type, frequency of team meetings and main type of team communication. Notably, while the influence of team size approached significance, the overall results indicate that personal, teams, and organizational factors have no significant effect on perceptions of pressure and stress in agile teams. These results highlight the need for further investigation

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¹ Associate professor, Modern Business School, Belgrade, Serbia, jelena.lukic@mbs.edu.rs

² Research Associate, Institute of Social Sciences, Centre for Economic Research, Belgrade, Serbia

into alternative factors that may influence perceptions of pressure and stress, but they also demonstrate the superiority of agile teams.

Keywords: agile teams, workplace stress, workplace pressure, perceptions, team dynamics

Percepcije pritiska i stresa među članovima agilnih timova: Empirijsko istraživanje u Srbiji

Apstrakt: Ovaj rad istražuje percepcije članova agilnih timova o postojanju timskog pritiska i stresa, sa posebnim osvrtom na različite faktore, kao što su lične karakteristike, struktura tima i komunikacione prakse. Empirijsko istraživanje sprovedeno je primenom onlajn upitnika u periodu od aprila do oktobra 2024. godine. U istraživanju je učestvovalo 110 ispitanika koji su članovi agilnih timova u kompanijama za razvoj softvera u Srbiji. Rezultati primenjenih testova, Mann-Whitney U-testa i Kruskal-Wallis H-testa, nisu pokazali statistički značajne razlike u odgovorima ispitanika u odnosu na njihov pol, starost, dužinu članstva u agilnom timu, veličini tima, tipu kompanije, učestalosti timskih sastanaka i dominantnom načinu komuniciranja. Iako se uticaj veličine tima približava statistički značajnoj vrednosti, rezultati pokazuju da lični, timski i organizacioni faktori nemaju značajan uticaj na percepciju pritiska i stresa u agilnim timovima. Dobijeni rezultati ukazuju na potrebu za daljim istraživanjem faktora koji mogu da utiču na percepciju članova agilnih timova ka postojanju timskog pritiska i stresa, ali isto tako ukazuju na superiornost ove vrste timova.

Ključne reči: agilni timovi, stres na radnom mestu, pritisak na radnom mestu, percepcije, timska dinamika

1. Introduction

An increasing number of companies are turning to flexible and agile business practices. Likewise, teamwork has become widely represented in all companies, because practice has shown that the numerous advantages of teamwork lead to positive business results (Lazarević & Lukić Nikolić, 2024). Agility and agile teams are important factors that can give IT companies a competitive edge in the market and ensure their growth, development, and progress (Antić, 2024). Agility has emerged as a crucial characteristic for both survival and long-term success in any organization. It refers to an organization's

ability to respond and react to external and internal changes rapidly and effectively (Lukić Nikolić, Dudić, & Mirković, 2024).

To drive the adaptability of their innovation teams, organizations increasingly rely on agile teams. According to Abdul Wahab, Dorasamy and Ahmad (2024) an agile team should "work towards a common goal, foster team spirit, share the vision, and set clear goals with good collaboration and flexibility in reprioritizing the tasks" (p. 50). Agile teams are characterized as collaborative groups of professionals with various but complementary skill sets that can interact and self-organize efficiently (Ciancarini, Farina, Masiagin, Succi, Yermolaieva, & Zagvozkina, 2021). Studies show that agile practices "have a positive influence on job and career satisfaction, better job engagement, improved psychological safety, and project success delivery" (Kennedyd, Zadeh, Choi, & Alborz, 2024, p. 1). Also, agile teamwork has a positive effect on project commitment, while project commitment positively affects team performance (Uraon, Chauhan, Bharati, & Sahu, 2024). Research confirms that agile methods contribute to product quality improvement and facilitate the creation of real business value in uncertain conditions (Carroll, Conboy, & Wang, 2023; Kude, Foerderer, Mithas, & Heinzl, 2023).

However, despite the numerous advantages of agile teams, research indicates that working in such teams leads to a high level of stress, which negatively affects job satisfaction and project results (Ogbonnaya, 2019). In contrast to traditional processes, agile approaches emphasize experimentation, shared ownership, and continuous stakeholder interaction (Zainal, Razali, & Mansor, 2020), which can be demanding and exhausting. Furthermore, agile approach is based on real-time modifications to constantly changing needs (Tam, Moura, Oliveira, & Varajão, 2020). Perceived workload, ambiguity of roles, facilitation of work and decision latitude are cited in the studies as the most common causes of stress among employees in the IT sector, associated with employee engagement at all levels of work experience (Raghavan, Sakaguchi, & Mahaney, 2008). On the other hand, perceived stress is most often measured by exhaustion at work and depressed mood (Heinrichs, Angerer, Li, Loerbroks, Weigl, & Müller, 2019; Mwakyusa & Mcharo, 2024). Employees in agile teams frequently face a variety of pressures that can contribute to burnout, such as the need for continuous adjustments, improvements, increased efficiency, and improved results (Lukić Nikolić & Mirković, 2023; Lukić Nikolić & Garabinović, 2023). There is a growing concern about pressure and stress in the workplace, especially among agile teams.

A critical gap in the existing literature lies in the limited understanding of the specific factors that contribute to perceived pressure and stress within agile teams, and how these factors interact to affect team dynamics and individual well-being. While prior research has identified the high workload, role ambiguity, and frequent need for real-time adjustments as key stressors

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(Raghavan, Sakaguchi, & Mahaney, 2008; Zainal, Razali, & Mansor, 2020), there is insufficient insight into how personal characteristics, team composition, and communication practices might influence these pressures. Specifically, there is a need to investigate the interaction between these factors and how they shape team members' perceptions of stress in agile settings.

The aim of this paper is to investigate the impact of several factors, specifically personal characteristics, team composition, and communication practices, on agile team members' perceptions of team pressure and stress. By exploring these factors, the research aims to contribute new insights into the factors that exacerbate or alleviate stress in agile teams, providing organizations with a deeper understanding of how to foster healthier and more sustainable work environments. The research findings are expected to inform strategies for improving team well-being, enhancing communication processes, and optimizing team composition, ultimately contributing to both individual and organizational success in agile contexts.

2. Literature review

Traditional project management in conditions of a changing environment and the need for flexible organizational functioning is being replaced by agile project management (Brendzel, 2023). Likewise, working in an agile team also differs from working in traditional teams and therefore requires its members to have different abilities such as social skills, organizational skills, conflict management, close cooperation with clients, as well as the ability to self-reflect and self-manage (Rietze & Zacher, 2023). Agile methods are increasingly widespread, but what attracts attention are their implications for workplace stress and pressure on employees. Continuous delivery of working software, daily communication with clients and changing requirements even in the final phase of project implementation create pressure on agile team members (Venkatesh, Thong, Chan, Hoehle, & Spohrer, 2020).

Many studies show that the benefits of teamwork actually come at the expense of high job demands and stress among employees (Ogbonnaya, 2019; Barker, 1993; Godard, 2001; Robertson, Rinehart, & Huxley, 1992). Nevertheless, one study revealed that the aforementioned negative consequences of teamwork gradually weaken at higher levels of affective commitment, which refers to employees' emotional attachment to a specific job or to the organization as a whole (Ogbonnaya, 2019). Parker and Slaughter (1988; 1995) point out that working in teams can be seen as maximizing the efforts of employees and performing a large number of activities at work at the cost of increased stress levels. Work in project teams is often associated with role ambiguity and role conflict, which cause stress, while affective commitment has the opposite effect - against job stress, pressures and burnout syndrome (King & Sethi, 1997; Venkatesh et al., 2020).

The findings of Khanagha, Volberda, Alexiou and Annosi (2022) demonstrated that pressure is widespread among agile team members and negatively affects team innovation. It is also influenced by control mechanisms at higher organizational levels. Research also indicates that team pressures related to deadline fulfillment lead to lower innovative team output. Kennedyd et al. (2024) also conclude that agile teams' success depends on improving motivation and maintaining sustainable development practices. Team members who consistently maintained a sustainable pace of their business activities achieved better workload balance and were less exposed to stressful situations.

On the other hand, there are opposing opinions. According to Pfeiffer, Sauer, and Ritter (2019) agile project management leaves the possibility to alleviate as many as four typical forms of stress in project management. First, due to the presence of short-cycle iterations and the provision of timely test results, it is possible to obtain feedback, enabling control and reducing the risk of failure. Second, short iterations also have a positive impact on stress by making it easier to estimate how much activity can realistically be accomplished per iteration. Third, agile team meetings are of limited short duration, while coordination activities are delegated to individuals outside the team itself. Fourth, agile project management allows team members to focus on core work as well as on monitoring and control, which also reduces work-related stress. The authors point out that the aforementioned can be achieved when the sprint is protected from unplanned additional tasks from the outside and in conditions of intensification of collective learning, which is followed by reducing self-exploitation to a minimum (Pfeiffer et al., 2019).

The results of the research conducted with employees on the project also confirmed the negative correlation between agile project management and stress at work and exhaustion of team members. Namely, these findings are particularly confirmed in organizations that foster a culture of psychological empowerment (Augner & Schermuly, 2023).

3. Research methodology

Empirical research was conducted using a specially designed questionnaire. The questionnaire was developed based on existing theoretical frameworks and empirical research on workplace stress, team dynamics, and agile methodologies. It consisted of two main sections. The first section of the questionnaire collected demographic and profile data, including questions on gender, age, type of organization, length of time working in an agile team, team size, frequency of team meetings, and main communication channels within the team. These variables were used to provide context for the respondents' experiences within agile environments. The second section of the questionnaire

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was dedicated to assessing the core constructs of the study: team pressure and stress in agile teams. It included a series of statements designed to measure perceived stress and pressure within agile teams. Respondents rated their agreement with each statement on a five-point Likert scale (1 = completely disagree, 5 = completely agree). The statements were grouped under the scale "Team Pressure and Stress in Agile Teams". This scale was developed by adapting key concepts from previous research on workplace stress and team dynamics. In particular, it draws on the work of Cohen and Wills (1985), who explored the role of social support in mitigating stress, and Sonnentag, Tay, and Shoshan (2023), who examined the effects of team workload and communication patterns on individual stress levels in organizational settings. Additionally, the scale was informed by studies on agile teams, such as Moe, Dingsøyr, and Dybå (2010), which identified common stressors related to the pace and demands of agile work processes. These studies provided valuable insights into the types of stress and pressure that may be experienced by team members in agile environments, guiding the development of the questionnaire statements. After preparing the questionnaire, pilot testing was conducted to ensure its reliability and validity. The pilot testing involved 30 respondents from agile teams in Serbian software development companies. Cronbach's alpha coefficient for the scale "Team pressure and stress in agile teams" was greater than 0.7, indicating that the measuring scale is highly reliable.

The research hypotheses were as follows:

Hypothesis 1: Personal characteristics of agile team members, such as gender and age, influence their perceptions of team pressure and stress.

Hypothesis 2: Agile team members' perceptions of team pressure and stress are influenced by their length of time on the agile team, team size, and company type.

Hypothesis 3: The frequency of team meetings and the main type of communication influence agile team members' perceptions of team pressure and stress.

The final questionnaire was carried out online. The sample was collected using the snowball technique, a non-probability sampling method, which involved sending a link to the questionnaire to the addresses of agile team members and IT company management, with the polite request that they forward the questionnaire to their colleagues from agile teams. In addition, the link to the questionnaire was shared on social and professional networks. A total of 110 members of agile teams in Serbian software development companies responded to the questionnaire from April to October 2024.

Processing and analysis of collected data were performed using Microsoft® Excel® 2019 and Statistical Software for Social Sciences, SPSS, version 21.0.

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The normality of the data distribution was examined using the Kolmogo-rov-Smirnov test, along with histograms, skewness, kurtosis, the normal probability curve, and the boxplot. The results for the scale "Team pressure and stress in agile teams", with a significance (Sig.) of 0.000, indicated that the assumption of normal data distribution was not met. As a result, non-parametric statistical techniques were used for statistical analysis within the measurement scales. The Mann-Whitney U-test was used to compare differences between two groups, while the Kruskal-Wallis H-test was used to compare differences among three or more groups with a 95% confidence interval. Levene's test for equality of variances was applied in all tests comparing differences between groups, meeting the assumption of variance homogeneity in all cases (p > 0.05).

4. Results and discussion

Table 1 presents the key information about the respondents. Men make up slightly less than two-thirds (63.6%) of the respondents, while women make up slightly more than one-third (36.4%). Given that men dominate the IT sector, this sample structure is reasonable. Almost half of the respondents (49.1%) are under 30 years old, implying that most agile team members are young. The sample comprises respondents aged from 30 to 50 (40.0%), but there are also respondents above 50 years (10.9%).

Gender	Number	Percentage		
Men	70	63.6		
Women	40	36.4		
Total	110	100		
Age	Number	Percentage		
Up to 30	54	49.1		
From 30 to 50	44	40.0		
Above 50	12	10.9		
Total	110	100		

Table 1. Key information about the respondents

Source: Authors' research

Table 2 presents the basic facts concerning agile teams. The largest group of respondents have been members of an agile team for more than five years (40.9%), followed by those who have been members for one to five years (39.1%). A small percentage of the respondents (20.0%) have been in an agile team for less than a year. In terms of agile team size, the largest group of respondents are members of agile teams with 7 to 12 people (43.6%), followed by respondents from agile teams with less than 7 people (40.9%).

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The largest group of respondents work for a domestic private company (50.0%), followed by a foreign company operating in Serbia (38.2%). This suggests that agile teams dominate in these two types of companies. In terms of meeting frequency, the largest group of team members have meetings once or twice a week (38.2%), followed by those who have daily team meetings (33.6%). A small percentage of agile team members attend meetings once every two weeks (15.5%). The most common type of communication among agile team members is via video calls (43.7%), followed by direct (face-to-face) communication (23.6%). More than one-fifth of respondents use e-mail and other similar communication tools (20.9%), while only 11.8% use phone calls.

Length of agile team membership	Number	Percentage
Less than 1 year	22	20.0
From 1 to 5 years	43	39.1
More than 5 years	45	40.9
Total	110	100
Team size	Number	Percentage
Less than 7 members	45	40.9
From 7 to 12 members	48	43.6
Above 12 members	17	15.5
Total	110	100
Company type	Number	Percentage
Domestic private company	55	50.0
A foreign company operating in Serbia	42	38.2
State/public institution	3	2.7
A startup company	10	9.1
Total	110	100
Frequency of meetings in agile teams	Number	Percentage
Everyday	37	33.6
Three to four times a week	14	12.7
One to two times a week	42	38.2
Once in two weeks	17	15.5
Total	110	100
Main type of communication	Number	Percentage
E-mail and similar communication tools	23	20.9
Direct (face-to-face) communication	26	23.6
Video call	48	43.7
Phone call	13	11.8
Total	110	100

Table 2. Key information about agile teams

Source: Authors' research

Table 3 shows the Cronbach's alpha coefficient for the measurement scale "Team pressure and stress in agile teams". This coefficient's value is 0.876, indicating that the scale is highly reliable (Taber, 2018).

Table 3. Cronbach's alpha coefficient for scale "Team pressure and stress in agile teams"

Scale	Number of items	Cronbach's alpha coefficient	
Team pressure and stress in agile teams	5	0.876	

Source: Authors' research

Table 4 presents descriptive statistics for the statements on the scale "Team pressure and stress in agile teams". The mean values for each statement on the scale are close to the threshold value of 3. The statement that respondents frequently have too many duties to complete in a short period of time has the highest mean value (3.21), while the lowest mean value is recorded for the statement that respondents frequently have to resolve difficulties that arise outside of working hours (2.82).

Other results indicate that more than 40% of respondents agreed they frequently have too many duties to complete in a short period of time, and that working in an agile team can be stressful. The obtained findings confirmed the results of previous research which identified the negative correlation between agile project management and the exhaustion of team members (Ogbonnaya, 2019; Barker, 1993; Godard, 2001; Robertson et al., 1992; Parker & Slaughter, 1995; King & Sethi, 1997; Venkatesh et al., 2020). On the other hand, 40% of respondents disagreed with the statement that they frequently have to resolve the difficulties that arise outside of working hours, and that many of their colleagues in agile teams have already experienced the "burnout" effect. The same percentage of respondents agreed and disagreed that it is difficult for them to be away from work for a few days since their workload has accumulated (35.5% each). It is important to mention that a considerable proportion of respondents answered neutrally, ranging from 23.6% to 30.9%. The majority of the neutral answers belong to those respondents who have worked in an agile team for less than a year. As a result of their lack of familiarity with the subject, they are likely to be unsure, as they did not have time to form an opinion regarding the statements.

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Statements	Answers	Number	Percentage	Mean	Standard Deviation
I frequently have too many	Disagree	32	29.1		
duties to complete in a short	Neutral	31	28.2	3.21	1.134
period of time.	Agree	47	42.7		
	Disagree	31	28.2		
Working in an agile team	Neutral	34	30.9	2.96	2.820
	Agree	45	40.9		
I frequently have to resolve	Disagree	45	40.9		
the difficulties that arise outside of working hours.	Neutral	29	26.4	2.82	1.272
	Agree	36	32.7		
It is difficult for me when I	Disagree	39	35.5		
am gone from work for a few	Neutral	32	29.0	3.00	1.306
has accumulated.	Agree	39	35.5		
Many of my colleagues	Disagree	44	40.0		
working in agile teams have	Neutral	26	23.6	2.96	1.289
"burnout" effect.	Agree	40	36.4		

Table 4. Descriptive statistics for items on the scale

Source: Authors' research

Table 5 presents the results of the Mann-Whitney U-test. The results did not show a statistically significant difference in the presence of team pressure and stress in the responses of men (Md=3.00, N=70) and women (Md=3.00, N=40), U=1189.000, Z=-1.316, p=0.188.

Table 5. Results of the Mann-Whitney U-test

Answers		N	Mean	Median	U	Z	р
Condor	Nen Men		52.49	3.00	1100.000	1 016	0.100
Gender	Women	40	60.78	3.00	1169.000	-1.316	0.100
Sourco: Aut	hore' recor	ch					

Source: Authors' research

Table 6 presents the results of the Kruskal-Wallis H-test. The results did not identify statistically significant differences regarding the age of respondents $\chi^2(df=2, N=110) = 3.173$, p=0.205; the length of working in agile team $\chi^2(df=2, N=110) = 3.478$, p=0.176; the agile team size $\chi^2(df=2, N=110) = 5.340$, p=0.069; the company type $\chi^2(df=3, N=110) = 3.842$, p=0.279; the frequency of meetings $\chi^2(df=3, N=110) = 5.899$, p=0.117; as well as the type of communication $\chi^2(df=3, N=110) = 3.387$, p=0.336.

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Answers		Ν	М	Md	χ2	df	р
Age	Up to 30	54	59.56	3.20	3.173	2	0.205
	From 30 to 50	44	48.92	2.70			
	Above 50	12	61.33	3.00			
Length of agile	Less than 1 year	22	66.57	3.50		2	0.176
team	From 1 to 5 years	43	54.05	3.00	3.478		
membership	More than 5 years	45	51.48	2.80			
	Less than 7 members	45	61.58	3.20			0.069
Team size	From 7 to 12 members	48	47.54	2.60	5.340	2	
	Above 12 members	17	61.88	3.00			
	Domestic private company	55	52.15	2.80	3.842	3	0.279
Company type	A foreign company operating in Serbia	42	55.35	3.00			
	State/public institution	3	81.17	3.80			
	A startup company	10	66.85	3.30			
	Everyday	37	49.05	2.80		3	0.117
Frequency of	Three to four times a week	14	48.07	2.90	E 900		
agile teams	One to two times a week	42	57.93	3.00	5.699		
	Once in two weeks	17	69.65	3.80			
Main type of communication	E-mail and similar communication tools	23	46.13	2.60			
	Direct (face-to-face) communication	26	53.21	3.00	3.387 3		0.336
	Video call	48	59.67	3.00			
	Phone call	13	61.27	3.00			

Table 6. Results of the Kruskal-Wallis H-test

Source: Authors' research

Table 7 presents the analysis regarding the outcomes of three hypotheses related to the perceptions of team pressure and stress among agile team members. Each hypothesis was evaluated based on p-values. The assumption that personal characteristics, concretely gender and age, influenced perceptions of team pressure and stress was not supported. The p-values of 0.188 for gender and 0.205 for age indicate a lack of statistically significant evidence to suggest that these personal characteristics play a meaningful role in shaping team members' perceptions of pressure and stress. The research contradicts the findings of the prior studies which revealed that personal characteristics significantly positively impact the perceived level of team climate (Vishnubhotla & Mendes, 2024; Vishnubhotla, Mendes, & Lundberg, 2020). The hypothesis 2 posited that factors such as the length of agile team membership, team size, and the company type would significantly affect perceptions of team pressure and stress. However, the p-values of 0.176 for

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the length of membership, 0.069 for the team size, and 0.279 for the company type suggest that there is insufficient evidence to support this hypothesis. Notably, the p-value for the team size approaches significance, indicating a potential area for further investigation. Finally, the hypothesis 3 examined the impact of meeting frequency and the main type of communication among agile team members on their perceptions of team pressure and stress. The p-values obtained (0.117 for frequency of meetings and 0.336 for communication type), indicate that these factors do not significantly influence team members' perceptions of pressure and stress.

Hypothesis	p-values	Decision
H1: Personal characteristics of agile team members, such as gender and age, influence their perceptions of team pressure and stress.	0.188 (gender) 0.205 (age)	Not supported
H2: Agile team members' perceptions of team pressure and stress are influenced by their length of time on the agile team, team size, and company type.	0.176 (length of agile team membership) 0.069 (team size) 0.279 (company type)	Not supported
H3: The frequency of team meetings and the main type of communication influence agile team members' perceptions of team pressure and stress.	0.117 (frequency of team meetings) 0.336 (main type of communication)	Not supported

Source: Authors' research

The obtained results on the established lower level of workplace stress are supported by the idea that, unlike traditional, non-agile teams, agile teams have a lower degree of pressure and stress due to the agile methods they use, due to frequent meetings, efficient organization, and clearly defined roles of each member. Agile methods are focused on fast delivery and flexibility, guaranteeing product guality and customer satisfaction. In addition, agile teams are guided by the principles of meeting the customers' needs through continuous delivery, accepting changes in all phases of project implementation, and as such teams achieve better creativity and innovation. These conclusions are supported by the research results on the transition from traditional to agile methods on employees' stress, empowerment and performance (Laanti, 2013). Agile methods have contributed to limiting the workload and team empowerment, resulting in increased performance and reduced stress. The author advocates the transition from traditional to agile methodologies, emphasizing that organizations should ensure that teams move from an overloaded, stressful and ineffective mode to a sustainable, relaxed, and betterperforming mode. Melnik and Maurer (2006) establish a positive correlation between the transition from traditional to agile methods and overall job

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satisfaction, explaining that the main advantages of such a transition for employees are that they are allowed to influence decisions that concern them, participate in interesting projects, and have relations with clients. According to Laanti, Salo and Abrahamsson (2011) the benefits of agile teams include greater satisfaction, a sense of effectiveness, increased quality and transparency, increased autonomy and happiness, and earlier detection of errors. Tripp and Riemenschneider (2014) also confirm that the transition to agile methods brings numerous benefits in that the practices, processes and philosophy of agile methods make employees more motivated and satisfied with their work. In such a constellation, employees are less exposed to workplace pressure and stress.

5. Conslusion

Throughout history, teams have proven to be the superior form for functioning and working of organizations and individuals. Each new type of team formed as a result of a business necessity or practice provided several benefits to organizations. Agile teams are not an exception. The results of the research, which included 110 members of agile teams from Serbian software development companies, revealed that mean values for statements about team pressure and stress are around the threshold value of 3. The statement that respondents frequently have too many duties to complete in a short period of time has the highest mean value (3.21) indicating a potential for workload among agile team members. Furthermore, the statistical analysis revealed that personal characteristics such as gender and age, as well as length of membership, team size, company type, frequency of team meetings and main type of communication do not significantly influence perceptions of team pressure and stress.

The findings from this research provide valuable insights for both the academic community and practitioners in the field of agile team management. For the academic community, the lack of significant relationships between personal characteristics, team membership factors, and team dynamics suggests the need for further exploration of alternative factors that may influence perceptions of pressure and stress. From the practical standpoint, research findings highlight the benefits of organizations that have implemented practical strategies adressing workload pressure and stress in agile teams. By focusing on these areas, organizations can create a healthier, more productive work environment that supports the well-being of their agile team members.

While the research provides useful insights, it is important to consider its limitations, such as the specific context of agile teams in Serbian software development companies. Consequently, the findings' generalizability to other industries or cultural contexts should be approached with caution. Future

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research should be conducted in various countries, industries and companies to enhance the validity of the conclusions. Furthermore, other researchers may focus on additional factors that may influence team pressure and stress perceptions such as individual coping strategies, team culture, and leadership.

References

- Abdul Wahab, A. M., Dorasamy, M., & Ahmad, A. A. (2024). Product Team in Transition: A Qualitative Case Study of Team Motivation and Collaboration during Agile Adaptation. *International Journal of Management, Finance & Accounting*, 5(2), 50-74. <u>https://doi.org/10.33093/ijomfa.2024.5.2.3</u>
- Antić, S. (2024). *The role and importance of agile teams in IT companies* (Master's thesis). Modern business school, Belgrade, Serbia.
- Augner, T., & Schermuly, C. C. (2023). Agile project management and emotional exhaustion: A moderated mediation process. *Project Management Journal*, 54(5), 491-507. <u>https://doi.org/10.1177/875697282311519</u>
- Barker, J. (1993). Tightening the iron cage: Concertive control in self-managing teams. *Administrative* Science Quarterly, 38(3), 408-437. <u>https://doi.org/10.2307/2393374</u>
- Brendzel, K. (2023). Agile Project Team Management in the Small and Medium-Sized Enterprise Sector – Empirical Research. Organization & Management, 176, 33-43. <u>https://doi.org/10.29119/1641-3466.2023.176.3</u>
- Carroll, N., Conboy, K., & Wang, X. (2023). From transformation to normalisation: An exploratory study of a large-scale agile transformation. *Journal of Information Technology*, 8(3), 267-303. <u>https://doi.org/10.1177/02683962231164428</u>
- Ciancarini, P., Farina, M., Masiagin, S., Succi, G., Yermolaieva, S., & Zagvozkina, N. (2021). Root Causes of Interaction Issues in Agile Software Development Teams: Status and Perspectives. In K. Arai (Ed.), Advances in Information and Communication (pp. 1017-1036). Berlin, Germany: Springer. <u>https://doi.org/10.1007/978-3-030-73103-8_74</u>
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310-357. <u>https://doi.org/10.1037/0033-2909.98.2.310</u>
- Godard, J. (2001). High Performance and the Transformation of Work? The Implications of Alternative Work Practices for the Experience and Outcomes of Work. *ILR Review*, 54(4), 776-805. <u>https://doi.org/10.1177/001979390105400402</u>
- Heinrichs, K., Angerer, P., Li, J., Loerbroks, A., Weigl, M., & Müller, A. (2019). Changes in the association between job decision latitude and work engagement at different levels of work experience: A 10-year longitudinal study. *Work & Stress*, 34(2), 111-126. <u>https://doi.org/10.1080/02678373.2019.1577310</u>
- Kennedyd, S. I., Zadeh, A. A., Choi, J., & Alborz, S. (2024). Agile Practices and it Development Team Well-Being: Unveiling the Path to Successful Project Delivery. *Engineering* Management Journal, 1-13. <u>https://doi.org/10.1080/10429247.2024.2413710</u>
- King, R.C., & V. Sethi (1997). The moderating effect of organizational commitment on burnout in information systems professionals. *European Journal of Information Systems*, 6(2), 86-96. <u>https://doi.org/10.1057/palgrave.ejis.3000259</u>

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- Khanagha, S., Volberda, H. W., Alexiou, A., & Annosi, M. C. (2022). Mitigating the dark side of agile teams: Peer pressure, leaders' control, and the innovative output of agile teams. *Journal of Product Innovation Management*, 39(3), 334-350. <u>https://doi.org/10.1111/jpim.12589</u>
- Kude, T., Foerderer, J., Mithas, S., & Heinzl, A. (2023). How deadline orientation and architectural modularity influence software quality and job satisfaction. *Journal of Operations Management*, 69(6), 941-964. <u>https://doi.org/10.1002/joom.1230</u>
- Laanti, M. (2013, January). Agile and Wellbeing--Stress, Empowerment, and Performance in Scrum and Kanban Teams. Paper presented at the 46th Hawaii International Conference on System Sciences, Wailea, pp. 4761-4770. https://doi.org/10.1109/HICSS.2013.74
- Laanti, M., Salo, O., & Abrahamsson, P. (2011). Agile methods rapidly replacing traditional methods at Nokia: A survey of opinions on agile transformation. *Information and Software Technology*, 53(3), 276-290. https://doi.org/10.1016/j.infsof.2010.11.010
- Lazarević, S., & Lukić Nikolić, J. (2024). *Timovi i timski rad upravljanje timskim procesima*. Beograd: Visoka sportska i zdravstvena škola.
- Lukić Nikolić, J., & Mirković, V. (2023). Occupational Burnout among Employees in Serbian Banking Sector: Evidence during Covid-19 Pandemic. *Inzinerine Ekonomika-Engineering Economics*, 34(5), 500-513. <u>https://doi.org/10.5755/j01.ee.34.5.31558</u>
- Lukić Nikolić, J., & Garabinović, D. (2023). Personal and organizational factors impacting burnout syndrome among hotel employees: A bibliometric and content analysis. *Hotel and Tourism Management*, 11(2), 129-145. <u>https://doi.org/10.5937/menhottur2302129L</u>
- Lukić Nikolić, J., Dudić, B., & Mirković, V. (2024). The Impact of Employee Engagement on Organizational Agility in the Digital Age: A Case Study of the Software Development Company. *International Review*, 1/2, 15-25. https://doi.org/10.5937/intrev2401015N
- Melnik, G., & Maurer, F. (2006, June). Comparative analysis of job satisfaction in agile and non-agile software development teams. Paper presented at the International conference on extreme programming and agile processes in software engineering, Berlin. Retrieved from <u>https://doi.org/10.1007/11774129_4</u>
- Moe, N. B., Dingsøyr, T., & Dybå, T. (2010). A teamwork model for understanding an agile team: A case study of a Scrum project. *Information and Software Technology*, 52(5), 480-491. <u>https://doi.org/10.1016/j.infsof.2009.11.004</u>
- Mwakyusa, J. R. P., & Mcharo, E. W. (2024). Role ambiguity and role conflict effects on employees' emotional exhaustion in healthcare services in Tanzania. *Cogent Business & Management*, 11(1), 1-12.
- Ogbonnaya, C. (2019). Exploring possible trade-offs between organisational performance and employee well-being: The role of teamwork practices. *Human Resource Management Journal*, 29(3), 451-468. <u>https://doi.org/10.1111/1748-8583.12238</u>
- Parker, M., & Slaughter, J. (1988). *Choosing sides: Unions and team concept*. Boston, MA: South End Press.
- Parker, M., & Slaughter, J. (1995). Unions and management by stress. In S. Babson (Ed.), *Lean work: Empowerment and exploitation in the global auto industry* (pp. 43–53). Detroit, MI: Wayne State University Press.

Industrija, Vol.52, No.2, 2024

- Pfeiffer, S., Sauer, S., & Ritter, T. (2019). Agile methods as stress management tools? An empirical study. *Work Organisation, Labour & Globalisation*, 13(2), 20-36. <u>https://doi.org/10.13169/workorgalaboglob.13.2.0020</u>
- Raghavan, V. V., Sakaguchi, T., & Mahaney, R. C. (2008). An Empirical Investigation of Stress Factors in Information Technology Professionals. *Information Resources Management Journal*, 21(2), 38-62. https://doi.org/10.4018/irmj.2008040103
- Rietze, S., & Zacher, H. (2023). Agile work practices: opportunities and risks for occupational well-being. *Gruppe. Interaktion. Organisation. Zeitschrift für Angewandte Organisationspsychologie (GIO)*, 54(4), 483-498. <u>https://doi.org/10.1007/s11612-023-00712-6</u>
- Robertson, D., Rinehart, J., & Huxley, C. (1992). Team concept and kaizen: Japanese production management in a unionized Canadian auto plant. *Studies in Political Economy*, 39(1), 77-107. <u>https://doi.org/10.1080/19187033.1992.11675418</u>
- Sonnentag, S., Tay, L., & Shoshan, H. N. (2023). A review on health and well-being at work: More than stressors and strains. *Personnel Psychology*, 76(2), 473-510. <u>https://doi.org/10.1111/peps.12572</u>
- Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, 48, 1273-1296. <u>https://doi.org/10.1007/s11165-016-9602-2</u>
- Tam, C., Moura, E., Oliveira, T., & Varajão, J. (2020). The Factors Influencing the Success of Ongoing Agile Software Development Projects. International Journal of Project Management, 38(3), 165-176. https://doi.org/10.1016/j.ijproman.2020.02.001
- Tripp, J. F., & Riemenschneider, C. K. (2014, January). Toward an understanding of job satisfaction on agile teams: Agile development as work redesign. Paper presented at the 47th Hawaii International Conference on System Sciences, Waikoloa, pp. 3993-4002. <u>https://doi.org/10.1109/HICSS.2014.494</u>
- Uraon, R. S., Chauhan, A., Bharati, R., & Sahu, K. (2024). Do agile work practices impact team performance through project commitment? Evidence from the information technology industry. *International Journal of Productivity & Performance Management*, 73(4), 1212-1234. <u>https://doi.org/10.1108/IJPPM-03-2023-0114</u>
- Venkatesh, V., Thong, J. Y., Chan, F. K., Hoehle, H., & Spohrer, K. (2020). How agile software development methods reduce work exhaustion: Insights on role perceptions and organizational skills. *Information Systems Journal*, 30(4), 733-761. <u>https://doi.org/10.1111/isj.12282</u>
- Vishnubhotla, S. D., & Mendes, E. (2024). Examining the effect of software professionals' personality & additional capabilities on agile teams' climate. *Journal* of Systems and Software, 214, <u>https://doi.org/10.1016/j.jss.2024.112054</u>
- Vishnubhotla, S. D., Mendes, E., & Lundberg, L. (2020). Investigating the relationship between personalities and agile team climate of software professionals in a telecom company. *Information and Software Technology*, 126, <u>https://doi.org/10.1016/j.infsof.2020.106335</u>
- Zainal, D., Razali, R., & Mansor, Z. (2020). Team Formation for Agile Software Development: A Review. International Journal on Advanced Science, Engineering and Information Technology, 10(2), 555-561. https://doi.org/10.18517/ijaseit.10.2.10191