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Review Article

THE IMPACT OF LOW-CODE/NO-CODE PLATFORMS ON ORGANIZATIONAL INNOVATIVENESS: A GENERATION Z PERSPECTIVE

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Abstract: *Low Code/No Code (LCNC) platforms enable end users without formal software development knowledge to independently create applications and automate business processes. This approach, known as end-user development and citizen development, contributes to the democratization of software development and creates opportunities for decentralized innovation within organizations. The ongoing development and increasing adoption of artificial intelligence-based tools further expand the functionality of LCNC platforms, making them more accessible, intuitive, and efficient for developing digital solutions. Given that Generation Z represents future drivers of digital transformation and potential citizen developers, it is important to understand their perceptions of the innovation potential of these platforms. The aim of this paper is to examine the perceptions of Generation Z regarding the impact of LCNC platforms on organizational innovativeness. The study is based on empirical research conducted through a survey administered to a sample of Generation Z respondents. The analysis focuses on their views regarding the contribution of LCNC platforms to business process improvement, the development of new products and services, and the enhancement of organizational innovation capabilities. The findings contribute to understanding the readiness of the future workforce to adopt LCNC technologies as tools for innovation and may serve as a basis for shaping strategies related to digital skills development and the implementation of these platforms in organizational contexts.*

Key words*: Low-Code/No-Code Platforms, Organizational Innovativeness, Citizen Development, Digital Transformation, Generation Z, End-User Development.*

JEL classification*: O31, O33, M15, M19, D83*

1. INTRODUCTION

Companies have been undergoing digital transformation for quite some time. In recent years, the widespread adoption of AI has only further accelerated this process. The digital workplace (Mićić et al., 2022; Raković et al., 2022) increasingly incorporates a growing number of applications. What seemed impossible just a few decades ago has now become part of everyday reality: empowered by Low Code/No Code (LCNC) tools, end users and domain experts are increasingly developing applications themselves and automating business processes. Curently, LCNC platforms represent a trend in the development of software solutions that is associated with numerous benefits in the software development process itself (Martins et al., 2023).

A useful definition of LC tools is provided by Darquier and Virgolini (2024), who describe them as "tools [that] represent a valid response to the complexity of modern architectures, offering a bridge between technical sophistication and the need for agility." Large companies have recognized the importance of LCNC platforms, and today hardly any major software company has not entered this space to some extent. For example, Microsoft's Power Platform, comprising SharePoint, Power Automate, Power Apps, and Power BI, is among the most widely adopted LCNC ecosystems (Marian et al., 2026). Similarly, SAP, one of the largest enterprise software providers, has been actively introducing its SAP Build Apps platform. In addition, there are numerous smaller companies offering their own platforms, such as n8n, Mendix, and OutSystems.

Although LCNC platforms enable rapid application development, reduce dependence on IT departments (although, for example, Ozman (2025) argues that LCNC platforms support enhanced collaboration between IT and business units), and facilitate the rapid adaptation of business processes (Marian et al., 2026), it is evident that LCNC platforms are not a one-size-fits-all solution (Shi et al., 2025) and that different platforms offer different capabilities. Trieflinger et al. (2025) emphasize that some platforms may still require end-user developers to possess a certain level of IT knowledge, particularly when developing more complex software solutions. The same authors also suggest that companies should introduce specific standards for the creation and deployment of LCNC-developed applications in order to mitigate the emergence of shadow IT (Đorđević Milutinović et al., 2023), while at the same time maintaining visibility and control over bottom-up innovations.

The value of LCNC platforms is further enhanced through the integration of AI into the development process (Shi et al., 2025). Shi et al. (2025) highlight a growing tension between empowering domain experts and end-user developers, on the one hand, and maintaining the long-term integrity of applications, on the other.

When it comes to innovation, Trieflinger et al. (2025) argue that LCNC platforms may constrain innovation to the functionalities supported by the platforms themselves. In contrast, Ozman (2025) emphasizes that LCNC platforms help organizations accelerate innovation, increase agility, and create competitive advantage. The same author further suggests that companies should foster innovation by encouraging application development by non-technical users, i.e., citizen developers. Furthermore, Binzer et al. (2024) view citizen development as a catalyst for digital innovation, enabling individuals to bring their ideas to life. Given that innovations are often associated with applications developed using LCNC platforms and considering that Generation Z represents the future drivers of digital transformation as well as potential citizen developers, it is important to understand their perceptions of the innovation potential of these platforms. Furthermore, in the available related research, we have not found any study examining attitudes toward the innovation potential of LCNC platforms from the perspective of Generation Z. Accordingly, the aim of this study is defined as follows:

RQ: To examine the perceptions of Generation Z regarding the impact of LCNC platforms on organizational innovativeness.

To address the research question, an empirical study was conducted involving university students.

2. METHODOLOGY

An online questionnaire was used as the research instrument. The respondents were students from two universities: the University of Belgrade, Faculty of Organizational Sciences (FON), and the University of Novi Sad, Faculty of Economics in Subotica (EF).

The total number of respondents was 93, and the distribution by study programs and faculties is presented in Table 1.

Table 1. Distribution of respondents by study program and faculty affiliation

Study Program	Faculty		Total
	EF	***FON***	
Economics – Management and Business	8	0	8
Economics – Accounting and Auditing	12	0	12
Management and Organization – Project Management	0	27	27
Organization and Management Consulting – Innovation Management	0	4	4
Business Informatics	42		42
Total	**62**	**31**	**93**

The majority of respondents are third-year undergraduate students, while the second largest group consists of fourth-year undergraduate students (Table 2). Only 4.30% of respondents are enrolled in master's studies.

Table 2. Distribution of respondents by the year of study

Year of Study (x_i)	Number of Respondents (f_i)	Relative Frequency (%)
3rd year (undergraduate)	41	44.09
4th year (undergraduate)	48	51.61
1st year (master's)	4	4.30
Total	**93**	**100.00**

3. RESULTS

Prior to examining students' attitudes toward specific LCNC-related categories, we sought to determine whether they had received any training in the use of LCNC tools. The majority of respondents had undergone some form of training in LCNC, either independently, as part of a university course, or through a combination of both (Table 3). At the same time, a substantial proportion of respondents (38%) had not received any training involving LCNC platforms.

Table 3. Distribution of respondents by LCNC training

Have you received any training in LCNC tools? (x_i)	Number of Respondents (f_i)	Relative Frequency (%)
Yes, independently	5	5.38
Yes, both independently and as part of courses within my study program	12	12.90
Yes, as part of courses within my study program	40	43.01
No	36	38.71
Total	**93**	**100.00**

As previously noted, LCNC platforms enable end users, i.e., end-user developers, to develop their own applications. The level of programming knowledge, as well as familiarity with LCNC platforms, may improve the quality of user-developed applications. For this reason, we sought to assess respondents' level of programming knowledge and their familiarity with LCNC platforms (Table 4).

Table 4. Relationship between programming knowledge level and LCNC platform familiarity

Programming knowledge level	LCNC platform familiarity					
	1	2	3	4	5	
1	18	8	2			28
2	11	3	8	2		24
3	3	8	19	2	2	34
4	0	1	3	1		5
5	0	0	1		1	2
Total	32	20	33	5	3	93

Table 5 presents five statements related to the innovation potential of LCNC platforms. Respondents evaluated the statements using a scale from 1 to 6, where 1 indicated strong disagreement and 6 indicated strong agreement. Additionally, respondents were given the option to select 0, indicating that they were unable to assess the statement or were unsure. The column N in the table represents the number of respondents who provided ratings from 1 to 6. The descriptive analysis of individual innovation-related statements shows that respondents assigned the highest mean score to statement inn_3 (M = 4.41; SD = 1.370), while the lowest-rated statement was inn_2 (M = 3.77; SD = 1.230). The remaining statements also exhibited relatively high mean values: inn_1 (M = 4.05; SD = 1.306), inn_4 (M = 4.13; SD = 1.316), and inn_5 (M = 4.20; SD = 1.399). Overall, the results indicate that respondents, on average, express relatively positive attitudes toward the innovation-related aspects of LCNC platforms.

Table 5. Statements on the innovation potential of LCNC platforms

Innovation Statements	*N*	*Min*	*max*	$\bar{x}$	σ
LCNC platforms reduce the time required to develop new ideas (inn_1)	66	1	6	4.05	1.306
Organizations introduce innovations more frequently after adopting LCNC solutions (inn_2)	61	1	6	3.77	1.230
LCNC enables non-IT employees to participate in	66	2	6	4.41	1.370

the innovation process (inn_3)					
LCNC encourages experimentation and creativity among team members (inn_4)	69	1	6	4.13	1.316
LCNC facilitates rapid testing and refinement of new concepts (inn_5)	69	1	6	4.20	1.399

Based on the previously presented statements, a composite score was constructed, represented by the aggregated variable INNOV_SCORE (innovations). Table 6 presents the average INNOV_SCORE across different training groups, in order to examine the perception of innovation potential depending on the type of training. The overall mean score is 4.08, indicating that respondents generally associate LCNC platforms with innovation in a positive manner. Given that the mean exceeds 4, it can be concluded that there is a moderately positive attitude and recognition of the innovation potential of LCNC platforms. The highest mean score is observed among respondents who reported receiving training as part of courses within their study program, while the lowest mean score is found among those who have not been exposed to LCNC platforms in any way.

Table 6. Distribution of INNOV_SCORE by LCNC training

	Average INNOV_SCORE
Yes, independently	4.1125
Yes, both independently and as part of courses within my study program	4.011111111
Yes, as part of courses within my study program	4.309722222
No	3.705
Grand Total	**4.084057971**

3.1. RELATIONSHIP BETWEEN PROGRAMMING KNOWLEDGE LEVEL AND ATTITUDES TOWARD THE INNOVATION POTENTIAL OF LCNC DEVELOPMENT

The relationship between programming knowledge level and individual innovation-related statements was examined using Spearman's correlation analysis (Table 7). The results indicate that there is no statistically significant relationship between self-assessed programming knowledge and any of the observed innovation statements (inn_1: $\rho = -0.008$; $p = 0.950$; inn_2: $\rho = 0.183$; $p = 0.159$; inn_3: $\rho = 0.124$; $p = 0.320$; inn_4: $\rho = 0.052$; $p = 0.671$; inn_5: $\rho = 0.123$; $p = 0.316$). Based on these findings, it can be concluded that the level of programming knowledge does not have a statistically significant effect on the evaluation of individual innovation-related statements within the observed sample. The number of respondents included in the analysis varied across items due to missing responses.

Table 7. Spearman's correlation analysis between programming knowledge level and individual innovation-related statements

Innovation Statements	**Spearman ρ**	**p value**
inn_1	-0.008	0.950
inn_2	0.183	0.159
inn_3	0.124	0.320
inn_4	0.052	0.671
inn_5	0.123	0.316

The descriptive analysis of mean innovation scores across different levels of programming knowledge indicates an increasing trend. Respondents who rated their programming knowledge at the lowest level (1) had an average innovation score of 3.96, while those with the highest level of programming knowledge (5) achieved an average score of 4.50. These results suggest that higher levels of programming knowledge are associated with higher innovation scores. To examine whether the innovation score differs depending on the level of programming knowledge, the Kruskal–Wallis test was applied. Descriptive results indicated a slight increase in the mean innovation score with higher levels of programming knowledge, with respondents at the lowest level (1) having an average score of 3.96 and those at the highest level (5) an average score of 4.50. However, the results of the Kruskal–Wallis test showed that these differences are not statistically significant, $\chi^2(4) = 1.819$, $p = 0.769$. Based on these findings, it can be concluded that the level of programming knowledge is not statistically significantly associated with the innovation score.

3.4. RELATIONSHIP BETWEEN THE LEVEL OF LCNC PLATFORM FAMILIARITY AND PERCEPTIONS OF THE INNOVATION POTENTIAL OF LCNC DEVELOPMENT

The descriptive analysis shows that the average innovation score varies depending on the level of LCNC knowledge (Table 8). The highest mean innovation score was observed among respondents

with the highest level of LCNC knowledge (5), where it reached 5.27, while the lowest mean score was recorded among respondents with a knowledge level of 2, amounting to 3.77. The results indicate an upward trend in the innovation score as the level of LCNC knowledge increases, particularly at higher levels of knowledge.

However, the results of the Kruskal–Wallis test did not confirm statistically significant differences between groups, $\chi^2(4) = 8.511$, $p = 0.075$. The findings suggest a tendency toward differences that should be further examined in a larger sample.

Table 8. Average innovation score by LCNC knowledge level

LCNC Knowledge Level	Mean INNOV_SCORE
1	4.215384615
2	3.769444444
3	3.963333333
4	4.89
5	5.266666667

The descriptive analysis indicates that the mean innovation score varies depending on the level of LCNC knowledge. The highest mean innovation score was observed among respondents with the highest level of LCNC knowledge (5), reaching 5.27, while the lowest mean score was recorded among respondents with a knowledge level of 2, amounting to 3.77. The results suggest an upward trend in the innovation score as the level of LCNC knowledge increases, particularly at higher levels.

However, the results of the Kruskal–Wallis test did not confirm statistically significant differences between groups, $\chi^2(4) = 8.511$, $p = 0.075$. Accordingly, the null hypothesis cannot be rejected, although the findings indicate a tendency toward differences that should be further examined on a larger sample.

CONCLUSION

According to Binzer et al. (2024), citizen developers, through the use of low-code/no-code platforms, drive the modernization and democratization of digital innovation. For this reason, it is particularly important to understand how younger generations perceive the relationship between LCNC development and innovation.

The findings suggest that members of Generation Z who are familiar with LCNC platforms tend to have more positive attitudes toward their innovation potential, especially when they have been introduced to these tools through formal education. Respondents who encountered LCNC platforms in this way expressed stronger beliefs that LCNC platforms contribute to innovation and are more likely to perceive them as tools of broader strategic importance. In contrast, members of Generation Z who have not been exposed to LCNC platforms, or have not received any training, tend to evaluate their innovation potential less favorably.

The integration of LCNC-related courses into academic curricula is therefore of great importance, as it can help future citizen developers recognize the potential of these platforms at an early stage. At the same time, while LCNC platforms offer numerous innovations and operational benefits, the associated risks should not be overlooked. Thus, a balanced understanding of both benefits and risks is essential for their effective use and for improving the quality of LCNC-developed applications.

It is evident that LCNC platforms will continue to evolve, enabling end-user developers to create increasingly sophisticated applications. Hagel et al. (2024) highlight that the combination of AI with LCNC platforms can facilitate citizen development and enable developers with no experience in modeling or coding to build applications. However, organizations must adopt appropriate governance frameworks and invest in training in order to maximize benefits and minimize long-term risks (Shi et al., 2025). With ongoing technological advancements, LCNC platforms are likely to become indispensable tools for organizations seeking to leverage digital transformation (Ozman, 2025), and will increasingly be adopted as part of enterprise architecture strategies (Bodicherla, 2025).

Although this study provides valuable insights into the perceptions of a segment of Generation Z regarding the innovation potential of LCNC-based software development, it is not without limitations. The primary limitations include the relatively small sample size and the focus on a single country. Accordingly, future research should extend this analysis to a larger sample and multiple countries. Furthermore, it would be beneficial to conduct similar research among business users who actively utilize LCNC tools, in order to compare the perspectives of emerging generations with those already engaged in the practical use of these platforms.

REFERENCES

[1] [1] Bodicherla, B. (2025). The Rise of Low-Code/No-Code Development: Democratizing Application Development. International Journal of Scientific Research in Computer Science, Engineering and Information Technology, 11(2), 171–178. https://doi.org/10.32628/CSEIT251112398

[2] [2] Binzer, B., Elshan, E., Fürstenau, D., & Winkler, T. J. (2024). Establishing a Low-Code/No-Code-Enabled Citizen Development Strategy. MIS Quarterly Executive, 253–273. https://doi.org/10.17705/2msqe.00097

[3] [3] Darquier, T., & Virgolini, P. A. (2024). Simplification of microservice development through low-code tools. EthAIca, 3, 147. https://doi.org/10.56294/ai2024147

[4] [4] Đorđević Milutinović, L., Raković, L., & Antić, S. (2023). Characteristics of Spreadsheet-Based Shadow IT in Serbian Companies. In M. Mihić, S. Jednak, & G. Savić (Eds.), Sustainable Business Management and Digital Transformation: Challenges and Opportunities in the Post-COVID Era. SymOrg 2022. Lecture Notes in Networks and Systems, vol 562. (pp. 148–171). Springer. https://doi.org/10.1007/978-3-031-18645-5_10

[5] [5] Ozman, F. M. (2025). A systematic literature review on current developments of low code-no code solutions in the IT sector. World Journal of Advanced Engineering Technology and Sciences, 14(3), 162–169. https://doi.org/10.30574/wjaets.2025.14.3.0072

[6] [6] Hagel, N., Hili, N., & Schwab, D. (2024). Turning Low-Code Development Platforms into True No-Code with LLMs. Proceedings of the ACM/IEEE 27th International Conference on Model Driven Engineering Languages and Systems, 876–885. https://doi.org/10.1145/3652620.3688334

[7] [7] Marian, C. V., Neferu, M., & Mitrea, D. A. (2026). Design and Evaluation of a Low-Code/No-Code Document Management and Approval System. Information, 17(1), 46. https://doi.org/10.3390/info17010046

[8] [8] Martins, J., Branco, F., & Mamede, H. (2023). Combining low-code development with ChatGPT to novel no-code approaches: A focus-group study. Intelligent Systems with Applications, 20, 200289. https://doi.org/10.1016/j.iswa.2023.200289

[9] [9] Mićić, L., Khamooshi, H., Raković, L., & Matković, P. (2022). Defining the digital workplace: A systematic literature review. Strategic Management. https://doi.org/10.5937/StraMan2200010M

[10] [10] Raković, L., Sakal, M., & Matković, P. (2022). Digital Workplace – Advantages and Challenges. The Annals of the Faculty of Economics in Subotica.

[11] [11] Shi, Z., Dong, J., & Gan, Y. (2025). Democratizing Digital Transformation: A Multisector Study of Low-Code Adoption Patterns, Limitations, and Emerging Paradigms. Applied Sciences, 15(12), 6481. https://doi.org/10.3390/app15126481

[12] [12] Trieflinger, S., Petrik, D., Polat, E., & Roling, B. (2025). Potentials and Risks of the Low-Code Development: A Systematic Literature Review (pp. 63–73). https://doi.org/10.1007/978-3-658-48215-2_8


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