World Journal of Advanced Engineering Technology and Sciences
eISSN: 2582-8266
Cross Ref DOI: 10.30574/wjaets
Journal homepage: https://wjaets.com/

(REVIEW ARTICLE)

Check for updates

A systematic literature review on current developments of low code-no code solutions in the IT sector

Firoz Mohammed Ozman *

Enterprise Architecture, Anecca Ideas Corp., Toronto, Ontario, Canada.

World Journal of Advanced Engineering Technology and Sciences, 2025, 14(03), 162-169

Publication history: Received on 05 January 2025; revised on 22 February 2025; accepted on 25 February 2025

Article DOI: https://doi.org/10.30574/wjaets.2025.14.3.0072

Abstract

The growing scarcity of skilled software developers has prompted organizations to turn to low-code/no-code (LCNC) platforms, which allow non-technical users to develop applications without requiring extensive knowledge of coding. LCNC platforms use AI and ML to automate the development process, thereby encouraging innovation and collaboration between IT and business teams. These platforms offer a plethora of benefits-including reduced times for development with drawbacks like vendor lock-in, higher security risks, and less competence in dealing with complex applications. Such research investigates business process changes facilitated by LCNC platforms in pursuit of filling knowledge gaps regarding the way they support improving organizational performance and leading innovation. A systematic review of the existing literature shows both developing trends and obstacles in the adaptation of LCNC platforms in the IT sector.

According to findings, these platforms incorporate the entire process of software development, which makes collaboration better and highly decreases the project timelines for organizations, providing them with a window opportunity to enhance efficiency and innovation in their operations. However, organizations need to address governance, security concerns, and scalability issues for the optimal integration of LCNC. Some practical recommendations are to set up a Center of Excellence (CoE), hybrid development approaches, and workforce training programs. This research enriches both academic and practical knowledge of LCNC technologies, enabling IT professionals and organizations to lead digital transformation and maintain competitive advantage in a dynamic market environment.

Keywords: Low-Code/No-Code (LCNC) Platforms; Systematic Review; Digital Transformation; IT Sector

1 Introduction

CEOs have made digital transformation their top priority but an existing skilled software developer deficit creates substantial difficulties in implementation. “Low-code-no-code solutions” acquire new relevance by enabling "citizen development (CD)” which empowers non-technical employees to create applications through graphical interfaces without coding abilities. By using visual tools and automation LCNC platforms make development easier. Organizations gain boosted speed to innovation through artificial intelligence combined with machine learning on these platforms which helps them optimize their processes and involve broader employee involvement in digital transformation initiatives (Carroll *et al.,* 2021). SAP (2024), defines “Low code” as an application development methodology enabling developers to construct applications via graphical adapters that decrease time spent on conventional hand-coding processes.

Low code platforms integrate traditional coding limits with faster project completion and easier access for users starting their development journey. By using this approach developers can speed up development while simultaneously

* Corresponding author: Firoz Mohammed Ozman

enabling better team cooperation between business and developers who work together to improve organizational agility towards market and business transformations (Rokis and Kirikova, 2023). “No code” advances existing development concepts to absolute basics. This tool offers the same hassle-free environment as low-code development systems that provide application-generation abilities to users who have no programming skills (Kumaraguru, 2024). The rise of these platforms demands a stronger understanding of their influence on business operations and procedures that support IT workflows.

1.1 Problem statement

Low-code/no-code development tools from the IT industry changed traditional software development practices through their ability to produce software applications at faster speeds. The IT sector is changing with the introduction of AI, ML, and automation to the development of technology. LCNC tools facilitate digital transformation by automating operations and improving collaboration. The platforms provide room for organizations to streamline workflows and become more efficient. Empirical research on the LCNC platform's impact on IT processes has been quite limited. This work deals with advanced features associated with LCNC platforms. The research investigates their effects in all major sectors and industries of the IT sector.

1.2 Aim of the Research

The study will investigate the latest innovation in "LCNC platforms" within IT companies. The research is meant to explore how these innovations are influencing IT processes. Further, it will assess both the advantages and challenges associated with introducing LCNC platforms in the IT organization. Lastly, it will suggest appropriate ways for LCNC integration so that innovation, agility, and business outcomes can be enhanced for IT workflows and operations.

1.3 Research objectives

- To identify new developments in LCNC platforms used in IT organizations.
- To evaluate the effects of the advances made on the IT processes and workflow systems in an organization.
- To assess the benefits and challenges of implementing LCNC platforms in IT.
- To recommend strategies for effective LCNC integration to enhance innovation.

1.4 Significance of the study

The relevance of this study lies in offering insights into the value, challenges, and changing effects of LCNC solutions on IT workflow and organizational performance. The problem lies with the LCNC platforms being adopted with wide rapidity in the IT sector, but their effects on the IT process are still not thoroughly explored. The problem is critical because LCNC is changing the way an application is developed. It empowers the development effort to engage non-technical people; however, there is security risk exposure and vendor lock-in. The urgency arises because time-to-market and speed of digital transformation cannot be compromised on efficiency and scalability. The research findings will help organizations identify methods to capitalize on these platforms for creating innovative developments as well as enhanced team productivity improvements and better project collaboration between developers. Research findings from this project will enhance existing knowledge about LCNC platforms while offering implementation strategies for businesses looking to build competitive advantages in the changing IT field.

1.5 Research Gap

Various research shows the benefits of LCNC platforms yet few studies focus on their actual effects on IT industries regarding workflow management and technology adoption practices. The existing body of research studies generic benefits and challenges while failing to deliver tailored insights that can help IT organizations. This research investigates the potential benefits that advanced Low-Code/No-Code platforms provide to enhance efficiency and innovation in IT operational structures.

2 Literature review

2.1 Low-code solutions

Low-code development uses visual tools, predefined components, and automation to simplify the development of software, reducing the need for extensive manual coding. It empowers individuals with limited programming skills to actively participate in the development process alongside IT professionals, ensuring better alignment between business needs and the final solution (Rokis and Kirikova, 2023). No-code technologies enable users to easily transform ideas into functional apps and eliminate the necessity for outdated technologies in business operations. Anyone can access

these platforms to produce useful applications by mixing components with APIs, whether they are non-technical staff, analysts, small business owners, or professional developers (Kumaraguru,2024).

2.2 Evolution of algorithm from machine code to low-code-no-code (LCNC)

The evolution of algorithms from machine code to low-code-no-code was described by Sufi (2023). According to the author, the evolution starts from the introduction of the first computer ENIAC in 1943 [Refer to Table 1].

Table 1 Evolution of LCNC (Sufi, 2023)

Year	Developments	Key features
1943	Introduction of ENIAC	First computer, marking the start of the computing era.
1949	Assembly languages	Simplified binary machine code, making programming easier but still low-level.
1952	Auto code	Introduced low-level programming languages to automate machine code translation.
1957	High-Level Procedural Languages (Fortran, COBOL)	Reduced complexity further, enabling easier programming with higher abstraction.
1965	Object-Oriented Programming (Simula, Smalltalk)	Shift towards object-oriented programming paradigms with languages that emphasized objects and classes.
2001	Low-Code/No-Code (LCNC) Development Platforms (Out Systems)	Emergence of platforms simplifying application development with minimal coding required.
2014	OutSystems Free Version	Free version of OutSystems made available, expanding the reach of LCNC tools.
2014	Forrester & Gartner Coin LCNC Terms	"Low-Code Development Platform" (LCDP) and "Low-Code Application Platform" (LCAP) were introduced.
2015 +	Major Companies Launch LCNC Tools (Microsoft Power Platform, Mendix, AppSheet)	Major tech companies launched their own LCNC tools, making it accessible for various businesses.
2020	LCNC Adoption Surge (COVID-19 Pandemic)	Increased adoption as businesses sought agile solutions for remote work and fast development.
2023	Continued LCNC evolution	Integration of AI, machine learning, and enhanced user interfaces, with projected global growth of 20%.

3 Material and methods

3.1 Overview

This research adopts Saunders's research onion for formulating the methodology and follows the steps involved it (Saunders et al, 2019). The research adopts positivism philosophy to systematically analyze secondary data to attain the objectives and to gain generalizable insights about the LCNC developments in the IT industry. This approach matches the study as it identifies trends and patterns from the data (Maksimović and Evtimov, 2023). As the research approach, this study will use inductive approach as it involves reading though the data and identifying codes and patterns (Witkowsky and Bingham, 2021). Systematic literature review is the research strategy for the research as it involves a structured exploration of existing academic and industry literature, focusing on advancements, challenges, and opportunities related to LCNC platforms within the IT sector. It offers a thorough, objective, and transparent summary of previous studies, supporting the objectives of the study while maintaining academic integrity and pointing out research gaps. Data were retrieved from Google Scholar and Science Direct. A systematic approach searched literature that covered the study's objectives. Specific words such as "low code," "no code, "IT workflows," "impact," "challenges," "adoption," "integration strategies," and "adoption frameworks," were employed. "Boolean operators AND and OR" joined relevant words. This investigation employs a cross-sectional study method to analyze current LCNC technology platforms. The research examines recent industry trends and innovative developments within the past five years. A collection of secondary data originates from published articles combined with industry reports and trusted

websites. The method enables the detection of cost-effective solution developments in LCNC. Research employs content analysis to process information found within the text data systematically. By using this technique researchers can detect unbiased patterns in written sources while ensuring results are reproducible (Bengtsson, 2016).

The examination of published material focuses exclusively on LCNC technological platforms which operate in the IT industry sector. The analysis includes peer-reviewed articles from the 2020 to 2025 time period as defined by Kitchenham and Charters (2007). The selected research materials examine new developments in LCNC and operational methods and integration techniques. The analysis provides both favourable aspects and drawbacks of implementing these tools (Tranfield, Denyer, and Smart, 2003). To make it more accessible and comprehensible, the review is confined to English-language literature (Petticrew & Roberts, 2006). Non-peer-reviewed sources, including blogs, are not included in the review. Duplicate and outdated articles are removed to ensure relevance (Arksey & O'Malley, 2005; Higgins et al., 2022). This is a systematic process followed in reviewing works. The review does not lack reliability and inclusiveness. It is an exhaustive collection of superior studies done, where data collection and analysis are properly made to fit the strict standards. This will also bring out the study's objectives and results, yet dependable outcomes for an evaluation of LCNC platforms and their impacts.

3.2 PRISMA DIAGRAM

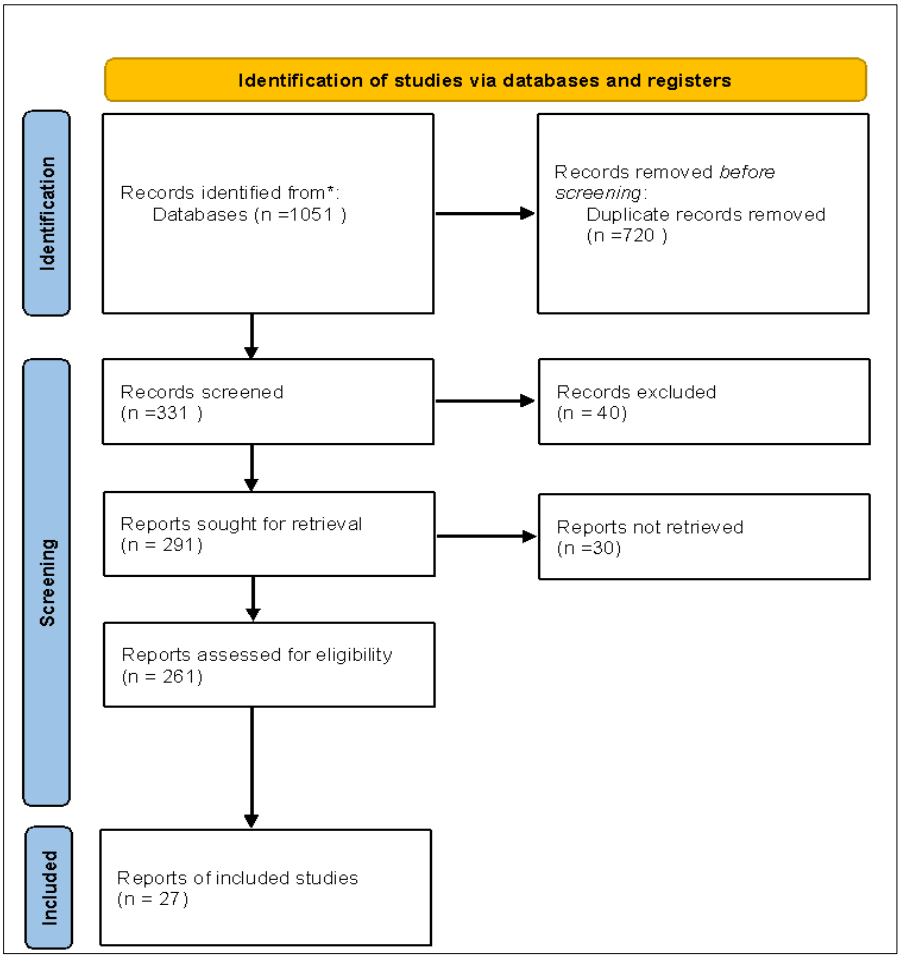

Figure 1 Prisma Diagram of the study

4 Results and discussion

4.1 Impact of LCNC Platforms on IT Development Processes and Workflows

A “structured systematic literature review” analysis is done on the LCNC in this report (Laxminarayana Korada, 2022). This uses software development with minimizing costs and visual interfaces (Hind El Kamouchi *et al.,* 2023). The platforms also boost application development speeds, making things more efficient (Prajwal Nimje, 2024). Non-professional users, or "citizen developers," are now able to contribute (Mary Lebens *et al.,* 2021). This change minimizes

the dependency on professional developers, enabling rapid application delivery (Zhaohang Yan, 2021). The implementation of LCNC platforms results in revolutionary changes in software development and delivery within organizations (Usman Rafiq *et al.,* 2022).

The implementation of LCNC platforms produces speedier development durations alongside better IT-business team working and boosted organizational generative capabilities (Prajwal Nimje, 2024; Karlis Rokis, 2023; Yajing Luo *et al.,* 2021). Using LCNC platforms organizations can create new prototypes quickly while engaging in continuous development cycles (Karlis Rokis, 2023; Edona Elshan *et al.,* 2023; Sebastian Käss *et al.,* 2023) to swiftly meet market changes and customer requirements (Prajwal Nimje, 2024; Karlis Rokis, 2023; Yajing Luo *et al.,* 2021). The implementation of LCNC platforms within existing IT workflows produces benefits but also results in governance requirements security issues and vendor lock-in potential (Edona Elshan *et al.,* 2023; Prajwal Nimje, 2024; Yajing Luo *et al.,* 2021).

4.2 Benefits and Challenges of Adopting LCNC Platforms in IT Companies

The literature demonstrates numerous advantages of implementing LCNC platforms. Through their deployment organizations achieve quick app development with reduced expenses and enhanced software quality by better connecting business operations to IT structures (Karlis Rokis, 2022; Laxminarayana Korada, 2022; Shreyas Shridhar, 2021). The strengths of LCNC platforms in allowing non-technical personnel to develop applications promise a solution to developer-skilled labour shortage (Mary Lebens *et al.,* 2021; Zhaohang Yan, 2021; Usman Rafiq *et al.,* 2022). The efficient features of LCNC platforms enable their use as business automation platforms targeted at service sectors as well as finance operations and manufacturing industries (Mayuresh Kulkarni, 2021; Raquel Sanchis et al., 2019; S. Bhattacharyya et al., 2021).

The exploration of LCNC platforms results in various organizational benefits at the expense of multiple adoption barriers. Yajing Luo *et al.,* 2021 and Sebastian Käss *et al.,* 2023 together with Edona Elshan et al., 2023 explain how vendor lock-in risks force organizations to pick specific platform ecosystems. Electronic platforms generate double challenges through their confidentiality handling of business data as these issues require additional security precautions along with data governance requirements (Prajwal Nimje, 2024; Edona Elshan *et al.,* 2023; Khorram *et al.,* 2020). Currently used LCNC platforms offer simplicity in application development, but lack scalability on complex projects (Yajing Luo et al., 2021; Karlis Rokis, 2023; Shreyas Shridhar, 2021). For such systems and complicated development, frameworks would be at a disadvantage as such systems would be limited in the use of these platforms because of such requirements.

4.3 Recommendations for Effective Integration of LCNC Platforms

4.3.1 Establishing a Center of Excellence (CoE)

Firms should establish a "Center of Excellence", which deals with tracking the use of LCNC platforms. By defining platform implementation recommendations with best practices for the use of such platforms, the CoE serves to guide to establish recommendations (Edona Elshan *et al.,* 2023). Sebastian Käss *et al.,* 2023 propose a model for the security and governance oversight of platform integration, preserving its functionality. It is a technical and business knowledge hub for all company teams.

4.3.2 Developing a Strategic Approach

A strategic framework must facilitate the integration of LCNC systems (K. Sadovnikov *et al.,* 2023). This initiative requires full compatibility with the organization's IT and business targets (Edona Elshan et al., 2023). Therefore, organizations have to decide if LCNC platforms meet such requirements: first, their specific business need and second, their defined use scenarios (Yajing Luo *et al.*, 2021). The deployed platform should have a smooth connection with being able to develop with current development procedures.

4.3.3 Addressing Security and Governance Concerns

Companies must implement robust data security protocols alongside proper governance mechanisms for their LCNC platform implementation (Prajwal Nimje, 2024). Strong permission-based access controls need to exist to impede unauthorized interactions. Regular encryption of data and security audits can decrease security risks to a great extent (Khorram *et al.,* 2020). Thus, after addressing these issues, organizations can easily ensure the integrity and safety of data.

4.3.4 Foster Collaboration Between IT and Business Teams

LCNC platforms excel if IT and business teams work together. To drive LCNC project implementation successfully, the firm must empower cross-functional teams (Karlis Rokis, 2023). Through coordination, such a project aligns with the intended business needs with the technical level requirement (Satu Iho *et al.,* 2021). A combined approach bolsters alignment as development moves together with the needed business requirements (Yajing Luo et al., 2021).

4.3.5 Investing in Training and Upskilling

In order to fully capitalize on the gains from LCNC platforms, the company should invest in the training of its employees. Training should address “technical and nontechnical users” (Zhaohang Yan, 2021). It will empower them to work effectively within the platforms while improving productivity levels (Usman Rafiq *et al.,* 2022). This process will provide the workforce with a competent and confident personality (Zhaohang Yan, 2021).

5 Conclusion

The systematic review of the literature indicates that LCNC platforms are revolutionary for IT. They have democratized software development with increased speed of application development and cost savings. LCNC platforms support improved collaboration between IT teams and business teams. However, they expose organizations to security threats and the possibility of vendor lock-ins. Another shortcoming is a lack of capacity to manage intricate, large applications. Despite these disadvantages, LCNC platforms are destined to be instrumental in IT in the future. Their integration supports organizations in accelerating innovation, and agility, and creating a competitive advantage. As the technology continues to evolve, LCNC platforms will become invaluable tools for organizations working to leverage digital transformation.

Recommendations

Adopting a Hybrid Development Model

A company should adopt the hybrid development model for flexibility (Mayuresh Kulkarni, 2021). The hybrid development model merges conventional development with "LCNC platforms" seamlessly (Shreyas Shridhar, 2021). It is suitable for rapid prototyping and low-complexity applications (Karlis Rokis, 2023; Shreyas Shridhar, 2021). The approach optimizes complex system operations through robust performance while delivering faster production cycles.

Focusing on Governance and Compliance

As LCNC platforms become more widespread "governance" along with "compliance" becomes increasingly significant. Enterprises need to maintain open policies concerning how employees should utilize their LCNC platform (Edona Elshan et al., 2023). Entireties must execute security policies for data protection along with privacy rules and industry requirements (Khorram et al., 2020). The platform's proper execution follows ethical and legal parameters through effective "governance" mechanisms (Prajwal Nimje, 2024). Enterprises should actively address regulatory standards when they decide to adopt the platform. Organizational structures developed for governance will enable businesses to access their systems securely and responsibly.

Encouraging Innovation Through Citizen Development

Companies should encourage innovation through non-technical user development of applications. "Citizen developers" can be enabled to achieve this by equipping them with the appropriate skills and resources (Zhaohang Yan, 2021). By providing "training" and handholding, organizations facilitate non-technical users in application development (Usman Rafiq *et al.,* 2022). It further boosts overall creativity and productivity of development within an organization (Mary Lebens et al., 2021). With non-developers being empowered, companies enhance innovation and overcome the bottleneck of development.

Monitoring and Evaluating LCNC Platform Performance

"Enterprises" must continuously monitor and review the performance of "LCNC platforms". The monitoring of "user satisfaction" is an essential KPI (Sebastian Käss et al., 2023). Reviewing "development speed", "cost savings", and "productivity" is also required to be aligned with K. Sadovnikov et al. (2023). Periodic reviews help to identify the scope for bettering the usage of the platform (Edona Elshan et al., 2023). Monitoring ensures the platform is aligned with the business objective.

Staying Informed About Emerging Trends

The "LCNC landscape" is very dynamic. It constantly has new features and platforms arising. "Enterprises" must stay abreast of the current trends and technologies (Mayuresh Kulkarni, 2021). Updates allow companies to exploit any changes in "LCNC" (Prajwal Nimje, 2024). Trends follow an upward trend and assist the enterprise to be competitive with the current technological developments. Adopting these new trends helps the company to maximize their "LCNC platforms".

Compliance with ethical standards

Acknowledgments

I would like to extend my gratitude to all the people who have helped me to complete this research. I would like to extend my gratitude to my mentor for providing me the opportunity to initiate research on this topic. I would like to thank my peers and parents for their extended and constant support.

Disclosure of conflict of interest

The authors declare that they have no conflicts of interest regarding this research.

References

[1] Bhattacharyya, S.S. and Kumar, S., (2023). Study of deployment of “low code no code” applications toward improving digitization of supply chain management. Journal of Science and Technology Policy Management, 14(2), pp.271-287.https://www.emerald.com/insight/content/doi/10.1108/JSTPM-06-2021-0084/full/html

[2] Carroll, N., Móráin, L.Ó., Garrett, D. and Arjun Jamnadass (2021). The Importance of Citizen Development for Digital Transformation. Cutter IT Journal, [online] 34(3), pp.5–9. Available at: https://www.researchgate.net/publication/350734831_The_Importance_of_Citizen_Development_for_Digital_Transformation.

[3] El Kamouchi, H. et al. (2023). Low-code/No-code Development: A systematic literature review. International Conference on Intelligent Systems: Theories and Applications.https://ieeexplore.ieee.org/abstract/document/10373712/

[4] Elshan, E., Siemon, D., Bruhin, O., Kedziora, D. and Schmidt, N., (2024, January). Unveiling Challenges and Opportunities in Low Code Development Platforms: A StackOverflow Analysis. In Proceedings of the 57th Hawaii International Conference on System Sciences. University of Hawai‘i at Mānoa. https://lutpub.lut.fi/bitstream/handle/10024/166823/elshan_et_al_unveiling_challenges_publishers_version.pdf?sequence=3

[5] Iho, S., Krejci, D. and Missonier, S., (2021). Supporting Knowledge Integration with Low-Code Development Platforms. In ECIS. https://serval.unil.ch/resource/serval:BIB_3AB938A18BA5.P001/REF.pdf

[6] Käss, S., Strahringer, S. and Westner, M., (2023). A Multiple Mini Case Study on the Adoption of Low Code Development Platforms in Work Systems. IEEE Access. https://ieeexplore.ieee.org/iel7/6287639/6514899/10286446.pd

[7] Khorram, F., Mottu, J.M. and Sunyé, G., (2020, October). Challenges & opportunities in low-code testing. In Proceedings of the 23rd ACM/IEEE International Conference on Model Driven Engineering Languages and Systems: Companion Proceedings (pp. 1-10). https://hal.science/hal-02946812/file/Challenges%26Opportunities%20in%20low-code%20testing.pdf

[8] Korada, L., (2022). Low Code/No Code Application Development-Opportunity And Challenges For Enterprises. International Journal On Recent And Innovation Trends In Computing And Communication, 10(11), pp.209-218. https://ijritcc.org/index.php/ijritcc/article/view/11038

[9] Kulkarni, M., 2021. Deciphering low-code/no-code hype-study of trends overview of platforms and rapid application development suitability. International Journal of Science and Research Publications, 11(7). https://www.ijsrp.org/research-paper-0721.php?rp=P11511488

[10] Kumaraguru, P.V.(2024). EVALUATION OF LOW CODE-NO CODE DEVELOPMENT PLATFORMS VERSUS TRADITIONAL DEVELOPMENT APPROACHES. [online] Available at:

https://www.researchgate.net/publication/381582451_EVALUATION_OF_LOW_CODE-NO_CODE_DEVELOPMENT_PLATFORMS_VERSUS_TRADITIONAL_DEVELOPMENT_APPROACHES.

[11] Lebens, M., Finnegan, R.J., Sorsen, S.C. and Shah, J., 2021. Rise of the citizen developer. Muma Business Review, 5(12), pp.101-111.https://www.researchgate.net/profile/Mary_Lebens/publication/358383894_Rise_of_the_Citizen_Developer/links/6571e6d0ea5f7f02054cd2a2/Rise-of-the-Citizen-Developer.pdf

[12] Luo, Y. et al. (2021). Characteristics and Challenges of Low-Code Development: The Practitioners' Perspective. International Symposium on Empirical Software Engineering and Measurement.https://www.researchgate.net/profile/Mary_Lebens/publication/358383894_Rise_of_the_Citizen_Developer/links/6571e6d0ea5f7f02054cd2a2/Rise-of-the-Citizen-Developer.pdf

[13] Maksimović, J. and Evtimov, J. (2023). Positivism and post-positivism as the basis of quantitative research in pedagogy. Research in Pedagogy, [online] 13(1), pp.208–218. doi:https://doi.org/10.5937/istrped2301208

[14] Nimje, P. (2024). The Rise of Low-Code/No-Code Development Platforms. International Journal of Advanced Research in Science, Communication and Technology.https://www.researchgate.net/publication/381757586_The_Rise_of_Low-CodeNo-Code_Development_Platforms

[15] Rafiq, U. et al., (2022). Understanding Low-Code or No-Code Adoption in Software Startups: Preliminary Results from a Comparative Case Study. International Conference on Product Focused Software Process Improvement.

[16] Rokis, K. (2023). Exploring Low-Code Development: A Comprehensive Literature Review. Complex Systems Informatics and Modeling Quarterly.https://www.researchgate.net/publication/375218739_Exploring_Low-Code_Development_A_Comprehensive_Literature_Review

[17] Rokis, K. and Kirikova, M. (2023). Exploring Low-Code Development: A Comprehensive Literature Review. Complex Systems Informatics and Modeling Quarterly, [online] 0(36), pp.68–86. doi:https://doi.org/10.7250/csimq.2023-36.04.

[18] Sadovnikov, K., Sweijen, R., van der Werf, J.M. and van de Weerd, I., (2023). A Framework to Assess the Suitability of Low-Code for BPM. https://aisel.aisnet.org/ecis2023_rp/215/

[19] Sanchis, R., García-Perales, Ó., Fraile, F. and Poler, R., (2019). Low-code as enabler of digital transformation in manufacturing industry. Applied Sciences, 10(1), p.12. https://www.mdpi.com/2076-3417/10/1/12/pdf

[20] SAP. (2024). Low-Code/No-Code: The Future of Development | SAP. [online] Available at: https://www.sap.com/products/technology-platform/build/what-is-low-code-no-code.html.

[21] Saunders, M., Lewis, P. and Thornhill, A., 2009. Research methods for business students. Pearson education. https://thuvienso.hoasen.edu.vn/bitstream/handle/123456789/3708/Contents.pdf?sequence=4&isAllowed=

[22] Shridhar, S. and Bose, S., 2021. Analysis of Low Code-No Code Development Platforms in comparison with Traditional Development Methodologies. International Journal for Research in Applied Science and Engineering Technology, 9(12), pp.508-513. https://www.academia.edu/download/78542364/Analysis_of_Low_Code_No_Code_Development_Platforms_in_comparison_with_Traditional.pdf

[23] Sufi, F. (2023). Algorithms in Low-Code-No-Code for Research Applications: A Practical Review. Algorithms, [online] 16(2), p.108. doi:https://doi.org/10.3390/a16020108.

[24] Witkowsky, P. and Bingham, A. (2021). Deductive and inductive approaches. [online] Available at: https://www.researchgate.net/publication/338676902_Deductive_and_inductive_approaches#pfb

[25] Yan, Z., (2021). The impacts of low/no-code development on digital transformation and software development. arXiv preprint arXiv:2112.14073. https://arxiv.org/pdf/2112.14073 .