Journal of
Information Technology,
Cybersecurity, and Artificial Intelligence

(RESEARCH ARTICLE)

AI Builder Integration and Implementation in Microsoft Power Platform: A Qualitative Exploration of Governance, Organizational Readiness, and Citizen Development

Pullaiah Chowdary Vutla
Research Scholar, Department of Information Technology, University of the Cumberlands, Williamsburg, Kentucky, United States
Email: vutlachowdary@gmail.com

Triveni Yenugu
Computer Science and Engineering, Jawaharlal Nehru Technological University, Hyderabad, India
Email: yenugutriveni944@gmail.com

Journal of Information Technology, Cybersecurity, and Artificial Intelligence, 2026, 3(4), Pages 136-152

DOI: https://doi.org/10.70715/jitcai.2026.v3.i4.080

Abstract

This study investigates the adoption and utilisation of AI Builder in the Microsoft Power Platform; the focus will be on the socio-technical barriers affecting the successful uptake within organisations. A qualitative approach utilizing a single-case study of documented AI Builder implementation at the Agriculture and Horticulture Development Board (AHDB) is used along with existing literature. A thematic analysis was performed to analyse the implementation process and the critical organizational and technical aspects of AI Builder adoption. As shown, governance, citizen development, and organizational preparedness were found to be major themes for effective implementation, and good data governance, collaborative efforts across teams, change management, and user trust are enablers for successful, sustained adoption. The AHDB case shows how AI Builder, when used with Power Apps, Power Automate, Power BI and Dataverse, can lead to better coordinated workflows, single data points and a more efficient organisation. The study demonstrates that the successful deployment of AI Builder is contingent more on organizational readiness and accountability than technological maturity. These findings offer an informed blueprint to organizations adopting low-code AI platforms and contribute to the ongoing body of literature in AI democratization and socio-technical implementations.

Keywords: Microsoft Power Platform, Artificial Intelligence, AI Builder, Human Factors, Organizational Readiness

1. INTRODUCTION

The modern business environment is defined by a speed of digital transformation never seen before, and artificial intelligence (AI) has migrated to a competitive edge to an organizational capacity [11; 12]. Nonetheless, the conventional route to AI application, based on highly expertise data scientists and programming engineers, has generated a democratization gap, restricting AI transformative power to a tiny group of individuals in an organization [6; 14]. This is of special concern regarding the Office 365 workflow where workers in different departments aim to automate the processes but do not have the technical background to execute the traditional solutions involving AI use [1; 22; 30].

To address this issue, the software development platforms of low code have started to reinvent the very core of intelligent solutions development and implementation [14; 15]. Microsoft Power Platform is one of the most prominent examples of the trend, providing a collection of solutions, such as Power Apps, Power Automate, Power BI, and most importantly, AI Builder, a low-code AI platform that allows people to add intelligent functionality without having profound understanding of machine learning [2; 7; 31]. According to Khaga (2025) [1], Intelligent automation, driven by artificial intelligence (AI), is transforming the organizational processes, making them more efficient, less manual, and allowing the use of data to make decisions.

Copyright © 2026 Author(s). Authors retain copyright and grant JITCAI the right of first publication. This work is licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0) License.

AI Builder is the AI empowerment engine of the Power Platform, providing ready-made models to address typical business situations as well as custom model solutions to business-specific requirements [7; 17; 34]. The fact that it can integrate with other well-known Office applications such as Office 365 offers a rich ground to introduce intelligence to everyday processes, whether it be automobile classification of incoming email messages or automatic data extraction in attached invoices [1; 22; 29]. In spite of its increasing use, a lack of academic literature that qualitatively analyses the lived experience of organizations that undertake its integration and use, especially in relation to the socio-technical dynamics that affect success, exists [19; 4].

In recent studies, there has been growing attention towards the adoption of low-code AI platforms to augment enterprise digital transformation and intelligent automation [14; 15; 16]. While there are several recent academic studies on Microsoft Power Platform and its AI Builder capabilities, workflow automation, and citizen development, most of these works have focused mainly on technical aspects, such as system efficiency, automation effectiveness, and software development [7; 17; 24]. Recent research additionally identifies the importance of governance, organizational readiness and maturity, the ethically aligned development of AI tools, and human-centered adoption of the solution; however, these are mostly debated as separate factors and not as interdependent socio-technical components that may affect its success [18; 35; 36]. Thus, there is little empirical qualitative evidence to explain how governance systems, organizational readiness, and human development work in tandem in shaping AI Builder adoption within organizational settings [4; 19]. Drawing on a qualitative case study, this paper provides such a unified examination of how these socio-technical components may collectively influence sustained AI Builder

adoption within a Microsoft Power Platform ecosystem [20;22; 30].

The democratization of offering low-code artificial intelligence (AI) systems such as Microsoft Power Platform is a decisive change in the digital transformation of the enterprise and supposedly allows a wider audience of professionals to create intelligent solutions [1; 26]. The imperative behind this paradigm is an acute industry demand: The lack of specialization in AI skills and the slow rate of traditional development that means that myriad high-value use cases can remain unaddressed [12]. Low-code AI specifically addresses this challenge by empowering so-called citizen developers, who are businesspeople with domain knowledge but few to no credentials in computer programming, to develop applications and automations, which will speed up their development cycles and decrease the load on IT resources [6; 4; 28]. Solutions including Power Platform have been designed to add AI Builder to inject a pre-built and custom AI model, including form processing and object detection, directly into a Power Apps and Power Automate workflow [7; 17]. This democratization zeal however covers a huge paradox. The availability organizational ecosystem, where data quality, process compatibility, and ethical issues will take center stage [11; 13].

The difficulty then shifts to that of socio-technical integration rather than technical accessibility. Although the entry barrier is lowered with the help of such tools as AI Builder, when implemented successfully, it leads to more subtle levels of complexity that go significantly beyond the development phase [5; 23]. The key issue with integrating AI is that user trust, resistance to change, and the necessity to explain AI-driven decisions are human factors that must be taken into consideration to achieve successful integration [10]. Moreover, the transition to citizen development, though creating efficiency, also gives rise to considerable issues that revolve around governance, security [37, 38,39], and technical debt management that should be well managed to avoid the negative consequences [2; 3]. Since organizations seek to automate increasingly complex processes, which involve judgment and analysis, the rise of intelligent automation over the plain robotic process automation is crucial but necessitates an advanced alignment of technology and people with governance structures [1;8].

This, in turn, creates a strong necessity to leave the vendor case study and performance metrics in favor of studying the lived-in experience of AI Builder integration qualitatively [19; 4]. The available studies determine the potential and functional capabilities that are allowed by technology [7; 9]. Nevertheless, there still exists a disjuncture with how socio-technical dynamics manifest the interaction between technology, processes, and people that are the determinants of success or failure [11; 13]. This paper fills this gap directly, as it qualitatively investigates the implementation cycle of AI Builder in the Power Platform [1; 22; 32]. It attempts to find the perceived obstacles, enabling conditions and realistic plans that organizations use to make the transition between AI experimentation and scaled impact [16; 25]. Through it, the study will contribute to practical implications in informing organizations on how to not only become technologically empowered but also be responsible, effective, and sustainable in the use of AI to address the deficit in democratization in practice [18; 20].

1.1. Research Question

Guided by the identified research gap, this research addresses the research question of "How do governance, organizational readiness, and citizen development affect successful adoption and implementation of AI Builder within Microsoft Power Platform in organizations?" The following questions helped to provide the context for this qualitative research inquiry. The research question framed the data collection, analysis, results, and discussion in this research [18; 35; 36].

2. Literature Review

2.1. The Evolution of Low-Code Platforms and AI Democratization

The traditional software development lifecycle has been viewed more as an impediment, incapable of meeting the needs of business which are changing rapidly [5; 14]. Low-code development platforms (LCDs) have become a disruptive solution to this problem [6; 15]. According to [6], LCDPs can be described as the environments that allow delivering the applications fast with the minimum amount of hand-coding, and do not require deep knowledge of programming. Their work emphasizes the fact that organizations that employ LCDPs can save as much as 60 percent of development time, thus speeding up the digital transformation process and enhancing the payoff of a project.

Speed is not the only reason why low code is attractive. Researchers [4] suggest that Low-code platforms lead to efficiency within organizations by overcoming the difference between IT and business units. They enable business professionals who are domain experts but have little knowledge of code writing (also known as citizen developers) to create solutions that meet their requirements. Not only does this democratization of development relieve central IT but also results in more closely aligned solutions. Studies, [2] however comments that this change also comes with its challenges especially in matters relating to governance and security which should be well controlled.

2.2. Intelligent Automation in Modern Enterprises

Intelligent automation (IA) is the next stage of a common robotic process automation (RPA) with the integration of such cognitive technologies as AI and machine learning. Study [5] points out that IA does not rely on a set of rules and repetitive to accomplish the task but instead processes unstructured data, predicts, and learns based on the results. This will allow the complex processes that involve judgment and analysis to be automated and will have a deeper effect on productivity and decision-making.

Khaga (2025) [1] places Microsoft Power Platform as one of the strategic facilitators of intelligent automation in the Office 365 setting. The study presents the example of how tools such as Power Automate can be integrated with AI to form so-called AI-driven tools which will simplify business processes, distribute resources more efficiently, and make the user experience more pleasant. The smooth connection with ubiquitous Office 365

2.3. AI Builder: Capabilities and Functionalities

AI Builder is the element that adds AI functionality to the low-code platform of the Power Platform. A more specific performance analysis is given by Wong and Kim (2025) [7] where AI Builder is described as providing organizations with the ability to add machine learning models, including text recognition and sentiment analysis, to work processes without involving data science skills. The platform provides two major routes: pre-built models to perform common functions (e.g. processing receipts, extracting key phrases) and custom models which could be trained on organizations own data applications, such as SharePoint, Outlook, and Teams is an ideal place to introduce intelligence into daily business operations.

Although the democratizing possibilities of low-code AI instruments, such as AI Builder are generally accepted, the actual pathway of embedding systems to complex organizational systems is still fraught with subtle issues that go beyond technical implementation [27]. The idea of AI democratization via such a platform as Microsoft Power Platform should be considered through the critical lenses of the actual implementation, where such aspect as governance, data preparedness, and cultural adoption are decisive. In spite of the purported reduction of the barrier to entry presented by tools such as AI Builder through offering ready-to-use and customizable AI models [7], the successful implementation of such tools depends on an advanced coordination of technical capacity, process design, and human factor. The fast processes of development enabled by low-code platforms are corroborated by research by Smith and Carter (2023) [6], but the AI components application leads to unprecedented levels of complexity, especially when it comes to guaranteeing the accuracy of the model, its ethical use, and scalability in enterprise-grade processes. Moreover, the transition to the type of citizen development, which is made possible through platforms that connect IT and business units [4], requires the existence of solid governance frameworks to address the risks of security, compliance, and model management, which is highlighted by Boppana (2023) [2] in the analyses of Power Platform automation. The

introduction of intelligent automation, the use of AI as the tool to process unstructured data and predictive activities [5], makes AI Builder a key facilitator in Office 365 ecosystems [1; 24].

Nevertheless, the spread of these solutions also brings some essential questions to the (so-called) democratization deficit in action: who has a final control, sustains, and deciphers these AI-based workflows? Enterprise automation has been cited to have security [37,38,39] and scalability issues, which Brown and Patel (2023) [3] describe as problems that are more pronounced when AI models are developed and deployed in non-traditional centralized IT governance. Hence, this paper states that a qualitative investigation is strongly needed to leave behind the performance measurement and case study of vendors. It aims to reveal lived experiences, perceived obstacles and enabling conditions that influence integration and implementation of AI Builder, which will add a socio-technical layer to the extant discourse of low-code AI and intelligent automation [1; 8]. Through the implementation milieu lens, this study seeks to offer practical information that can guide organizations to manoeuvre the balance between technological empowerment and effective responsible deployment.

According to recent peer-reviewed literature, not only are the technological abilities of AI important to successful low-code adoption of AI, but the organization's use of governance, the trust of users, the quality of data, AI ethics, and collaborative processes between functional groups are all very significant [1; 2; 7]. Even more recent research states that organizational AI adoption is sustainable when an organization can achieve a balance between technological innovation and the organization's capacity and readiness, including effective governance and sustained skill development [4; 6]. All of this recent literature strongly suggests that there is a link between the socio-technical and organizational characteristics, which should prompt more in-depth Qualitative research into these areas. [1; 3].

2.4. Orientation to Microsoft Power Platform

Microsoft Power Platform (Fig. 1) comprises a collection of Low-Code/No-Code tools in Microsoft 365 that you can use to build your own business application, automated processes, interactive dashboard and websites [9].

The Power Platform might be a relatively recent one but the different elements that comprise it are not. It is most likely that people have heard about these components and perhaps even used them. These elements have been highlighted as follows:

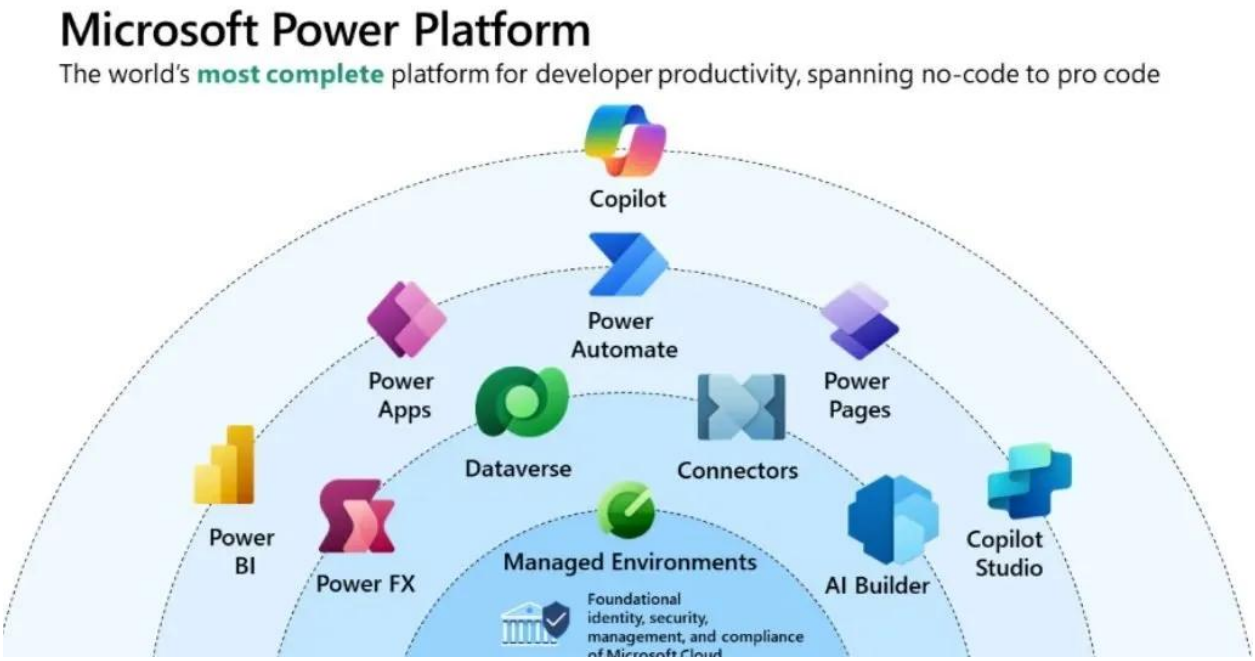

Fig.1. Components of Microsoft Power Platform

Source: (Redknap, 2025)

2.5. Significant Use of Microsoft Power Platform

A report by Gartner was released on 16 October 2024 of Enterprise Low-Code Application Platforms (Fig.2). The low-code Power Apps service offered by Microsoft is among the leaders in this report and has been recognized as such since 2016. The future of business application development is low-code and no-code. By 2029, Gartner estimates that 80 percent of the application development projects in the world will be based on low-code development, increasing to 15 percent in 2024. It will dominate traditional coding because it will be the preferred application delivery platform within a few years to come [9].

Fig.2. Magic Quadrant for Enterprise Low-Code Application Platforms/ Microsoft Power Platform

Source: Gartner October 2024 (Redknap, 2025)

2.5.1. Power BI

Power BI is a system that allows you to view and manipulate your data, to extract useful information within a relatively short time, so that you can make a good choice and make the required changes in your business processes as fast as possible [9; 21].

2.5.2. Power Apps

It is fast and easy to create custom applications with Power Apps. The information that you utilize may be SharePoint, Excel, and so on. Development of apps with no prior understanding of code, creation of your own applications, connecting with other systems and working on your computer and mobile are some of the benefits of Power Apps [9].

2.5.3. Power Automate

Business processes can be easily automated, integrated and accelerated with Power Automate. By taking advantage of Power Automate, you can convert time-intensive processes into quick automated processes and release resources to focus on your business. The productivity of your company can be greatly enhanced by Power Automate [9].

2.5.4. Power Pages

Overall, Power Pages is a low-code website builder in business. Microsoft power pages is a secure, enterprise-ready, low-code software service platform on which to create, host and manage modern external-facing business websites [9].

2.5.5. Copilot Studio

The newest component of Power Platform is Copilot Studio. Microsoft Copilot Studio is a graphical low-code platform that lets you customize Microsoft 365 Copilot and create a standalone copilot [9; 33].

2.6. Microsoft Power Platform Advantages.

2.6.1. Empower citizen developers

The Power Platform will provide your workers with the chance to develop applications, automations, or reports themselves, without being pro-developers. Previously, it was the case that employees had to be heavily dependent on the IT department when it comes to development but now, they can create their own solutions with minimal technical complexity in few steps [9].

2.6.2. Reduce IT resource burden

This encouragement of the development of the citizens will release IT professionals to work on more sophisticated projects.

2.6.3. Mobile accessibility

The power platform can be used to access all its applications on all devices and can be customized to suit all screens. Your apps can be used by people to access your dashboards and read reports containing real-time information, which enables the entire staff (even frontline employees) to be aware and connected at any given time [9].

2.6.4. Basic mechanicalizing of business processes

By 2025, automation will be a paramount concern of a successful business. All companies need to handle the required but redundant business processes that consume so much of time and energy. Power Platform provides you with a chance to automate work processes to be more productive. Power Automate allows one to auto-create repetitive processes by creating workflows to free resources to do additional work. This will save you time and make you more productive [9; 35].

2.6.5. Self-a flexible work environment

Power platform is a cloud-based platform that enables users to use all the tools anywhere and at any time, which enables flexible working structures [9].

2.6.6. Extensive visualization of data

More specifically, Power BI offers effective data analysis and visualization tools to assist organizations in getting meaningful insights into their operations and performance [9].

2.6.7. Improved decision-making

The information generated every day by your company holds useful information. Such tools as Power BI could assist you in analyzing and interpreting your data to make appropriate business decisions and introduce changes in a timely fashion. Indeed, Power BI dashboards may supply you with current information hence the business-related decisions will be made with the help of the latest information [9].

2.6.8. Enhanced performance and cooperation

Power Platform tools are easy to enhance, digitize or standardize processes, and they will subsequently grow productivity and enhance teamwork. The Power Platform applications are integrated in all directions with your Microsoft world to bring uninterrupted workflow and integration [9].

2.6.9. Save costs

Power platform is a low-code platform that enables organizations to develop solutions that can automatize business processes without necessarily writing complicated code. It will save you time and money on the development expenses. Moreover, you will not have to hire a costly IT professional to do it on your behalf as anyone can become a Power Platform developer when provided with the right support [9; 36].

2.6.10. Reduced time to market

The low code/no code functionality, pre-built components and templates, and even the drag and drop interface make power platform pro-developers and citizen-developers with little or no coding background to build application and workflows quicker and more naturally than with traditional programming languages. This minimizes the development time and may minimize the time to market new solutions [9].

2.7. Power Platform Project Examples with Case Study

The actual strength of Power Platform does not reside in the system per se, but the relationship between the constituents within a single centralized platform. We have engaged numerous customers in a range of industries implementing multiple solutions of Power Platform simultaneously. These are some of the examples of the Power Platform projects we conducted in the recent past:

2.8. Power Platform and Microsoft Teams AHDB RAG Analysis Management Solution.

Intelogy contracted with AHDB to enhance the efficiency and ease of the regular RAG (Red/Amber/ Green) Analysis (Fig. 3) which they conduct after every 6 months of their Research and Knowledge Exchange projects. It was also necessary to handle the gathering of Data Quality evaluation of the same projects [9].

The developers have designed a set of canvas Power Apps and integrated the Power BI Online Service to offer a secure and easy-to-access reporting system. This has become much easier and time saving since all the active projects are now

easily accessible and maintained by the administrators of the AHDB Project Analysis Team since they are all found in a central location. More information regarding the project [9].

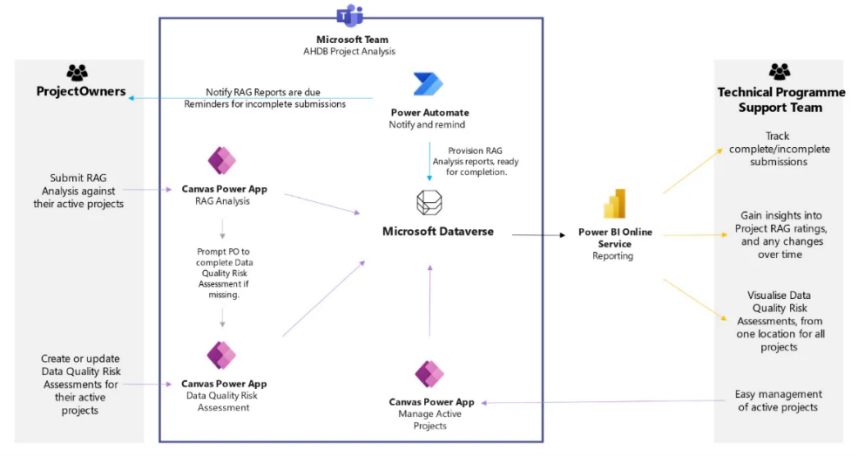

Fig.3. High-level solution architecture diagram

Source: (Redknap, 2025)

3. AHDB RAG analysis management solution with Power Platform and Microsoft Teams

Agriculture and Horticulture Development Board (AHDB) is a statutory levy board, which is funded by farmers, growers and other parties in the supply chain to enable the industry to thrive in the fast-changing world. AHDB was seeking to increase the efficiency and convenience of the regular RAG (Red/Amber/Green) Analysis, which they conducted after every 6 months on their Research and Knowledge Exchange projects. It also demanded an extra need to handle the Data Quality evaluations collection of the identical projects [9].

AHDB desired to incorporate the two work streams into one efficient solution to simplify the data collection procedures, eliminate data duplication, and minimize the volume of manual workload required to support the data collection procedures [9].

Intelogy applied Dataverse to Teams that brought about an organized centralized data repository with Microsoft Dataverse. The three canvas Power Apps were developed to meet the needs of the different audiences in AHDB who would need to have access to the solution in different capacities. The process owners are relieved of the burden of monitoring the completion status and sending out reminder messages by a network of Power Automate workflows that support these canvas applications. Data and report visualization and reporting were carried out on the Power BI Online Service, which was significantly improved by a new central data store [9].

3.1. Challenge

AHDB also performs a RAG Analysis of their active projects once every six months and give the projects a red, amber, or green rating based on the answers to a series of questions regarding the project delivery [9]. Their former process was ready and fulfilled in a centralized Microsoft Excel spreadsheet on SharePoint Online. The volume of manual work was required to ensure the accuracy of the data because they tend to have more than 250 projects operating simultaneously, and there was no regulated data collection procedure, so there was a possibility of input error and possibly incorrectly assigned RAG statuses. Moreover, since each reporting cycle was enclosed in a distinct Excel file, it did not allow an easy opportunity to track the trends in the projects and its RAG statuses over time [9].

Most of the projects also included the need to have a Data Quality and Sensitivity Assessment done in case the project was generating data. Similar to the RAG process, this was also grounded on the Microsoft Excel greatly, a template had to be filled out by the project manager. These Data Assessments were saved in their own SharePoint team site in each of the projects upon completion, and therefore, it was difficult to cross-analyze the quality and sensitivity of projects generated data at an organizational level [9].

3.2. Solution Strategy

As per the analysis of the current processes conducted by Intelogy to the situation of AHDB, the Microsoft Power Platform was found to be central to the entire solution design. The information that was used in this process was very structured and relational by nature, hence needed a central storage point where rich and insightful reporting could be conducted. The general business process at AHDB targets owners of the projects within the organization and, therefore, denotes objective-oriented, team-oriented environment [9].

The choice made by Intelogy was to use Dataverse for Teams as the basis of data collection and storage, and Power BI Online Service to visualize that data [9].

The Microsoft Team was formed, and the environment of the Power platform was enabled in the context of this team to generate Dataverse for Teams platform to store the appropriate apps, workflows, and data. Each area of the project analysis process received its own channels in Teams, which offers set points to access applications, reports and any other supporting documentation, guidance videos (stored in Microsoft Stream) and ongoing chat conversations pertinent to the target audience [9].

3.3. Canvas Power Apps

Minimalistic but rational user experiences were launched with a number of canvas Power Apps. Every app was connected to the data store that was behind the setting of Dataverse in Teams. The use of these applications was permission scoped, and the right individuals had access to the applications that they need to perform their respective duties [9].

Three single canvas applications were created to target the following domains [9]:

6.3.1. Management of active projects by Technical Programme Support Team.

6.3.2. Project Managers will be required to fill in RAG Analysis report.

6.3.3. Data Quality and Sensitivity Risk Evaluations to be prepared and revised by Project Managers.

3.4. Project Management app

Intelogy created a Canvas Power App to offer the capability that the Technical Programme Support Team could centralize its projects and ensure that the relevant metadata could be populated to add value to reporting experience and that the relational data model on which this solution is built. Another part of this application is the control over the reporting periods, which is the possibility to control the starting and ending dates of data collection, the timing when the data should be completed and the date when the work should be started with the help of automatic workflow activated to inform project owners and present the data to be finished. The application is readily available as a Microsoft Teams tab which is located under the corresponding channel [9].

3.5. RAG Analysis app

The RAG Analysis Canvas Power App is an application that allows Project Managers to input and view any project RAG submissions of any project they own [9]. The power app will have a form to capture data using conditional logic to dynamically control the appearance of the inputs based on the input of the user [9]. It was also improved by offering a sign of the RAG status under the heading of a selected project and period, which literally changes with every step the user takes through the submission and changes colors based on the choices made, and ultimately, automatically calculates the result of a RAG Analysis report [9].

4. Data Quality and Sensitivity Assessments app

Intelogy created a Canvas Power App to support the Data Quality and Sensitivity Assessment process of AHDB that demands the Project Owners to establish, document and avert risks to the quality and sensitivity of data pertaining to projects that are currently operational [9]. This application generalized the former inquiries and measurements to be saved in a special created table in the Dataverse database [9]. Since the entry of this data was centralized and directed via the front-end Power App experience, it allowed to perform a higher level of data validation against some fields that was not previously possible, which ensured that the data that was entered during this assessment process is comprehensive, valid, and meets the requirements of AHDB internally [9].

This also enabled carrying out real time and responsive feedback, which entailed automatic calculation of values, based on other data inputted in the app in order to dynamically deliver a current depiction of the probable outcome of the input made on the occasion of giving the data offered [9].

In addition to this, since these values were dynamic in nature, one could take advantage of this dynamic state to trigger other functionality, including inviting users to document planned mitigations in case a project was calculated with a sufficiently large quality or impact risk score [9].

The app is project first, which means that it will show the user a list of their active projects with a status indicator next to each project to indicate whether a data assessment has been uploaded to the project in question [9].

Compared to the previous Microsoft Excel template, where one had to fill in the content of the column titled Project Information manually, there was no longer any need to do so by exploiting the connection between data assessments and the corresponding projects in order to automatically find out and calculate the information [9] . This not only made this process easier to the users but also minimized the necessity to duplicate information but also any problem that may arise due to the improper transcription of this information. The application in a smooth manner accommodates the whole Data Assessment process, including data collection, data verification all the way to reporting and saving the data in a format that is most convenient when reporting and auditing [9].

5. Power BI Reports

The tool used to offer an easily accessible and safe reporting environment that would unveil the data stored in Microsoft Dataverse and then make it accessible to the full data transformation and visualization power of Power BI was the Power BI Online Service. Intelogy built two different reports in the processes of RAG Analysis and Data Quality and Sensitivity Assessment respectively [9].

The RAG Analysis report also brings out the red, amber, and green risks rating across the lifecycle of a project and also provides the aspects that lead to such outcomes. The data architecture has the benefit of opening the potential range of potential data inquiries, e.g., investigating any effects a type of project, contractor, project value or project owner can have on a RAG Analysis result, this has made more discoveries about existent data, at the same time making those more discoverable to report on, e.g. monitoring and tracking trends through time [9].

Data Assessment report is an area of concentration on the representation of the probability and influence of data quality and sensitivity submissions [9]. This data is published at a level of granular detail, project-by-project, but also gives the possibility of seeing these data points compared to all of the projects, or to all the projects that belong to a third variable, which is the business sector to which such projects belong [9]. This enables AHDB employees to utilize this report either to achieve insights related to individual projects or projects categories, or to derive an idea of trends and patterns at the organizational level through the centralized, relational data storage approach provided by Microsoft Dataverse [9]. In order to ensure that such reports are readily available to every member of AHDB, such reports were pinned as tabs on the respective channels in Microsoft Teams and a user will be able to just jump into the data in order to assist him/her to inform his/her daily workload [9]. Intelogy designed an effective, user-friendly and efficient solution to AHDB that provides all the required control over access and governance. The new streamlined experience does not only help in reducing the number of manual work that Project Owners have to do but also provides unprecedented options, including guaranteeing data integrity and direct-from-source reporting [9].

Nowadays, administrators of the AHDB Project Analysis Team have an easier and less time-consuming time, as they can easily view and maintain all active projects, as these are located in one central place [9].

The integrative workflows in Power Automate have also decreased the number of manuals working to create RAG Analysis reports and due to the system of automatic notification, the Project Owners are also in the know of the deadlines to produce reports before they are actually due [9]. The canvas power app used to enable the Data Quality and Sensitivity Assessment will enable a unified and straightforward user experience in data entry with the steps taken of navigation and visual prompts put in place and the integrity of data through conditional logic and required fields. The central data storage will make the data gathered a far richer reporting experience and will lead to increased flexibility in the analysis of projects on the top level or an individual level [9].

Since the reporting process is hosted in the Power BI Online Service, one can access it easily on any device and/or can be native to Microsoft 365 services, including SharePoint and Microsoft Teams [9].

6. Methodology

This research used a qualitative, single-case study design to examine the socio-technical processes of the AI Builder integration in the Microsoft Power Platform. In this study, it focused on an in-depth analysis of a documented implementation project, which is introduced in the case study of the Agriculture and Horticulture Development Board (AHDB) accomplished by Intelogy [9]. The case under consideration is intentionally chosen because it offers a dense, real-life scenario of a holistic Power Platform implementation of a number of components, namely, Power Apps, Power Automate, Power BI as well as the underlying Dataverse, in a complex organizational process, thus, presenting a contextual prism through which to analyze the phenomena of integration.

The information used in this qualitative analysis came solely out of the comprehensive publicity on the AHDB project, and all the other literature resources were utilized. This is made up of comprehensive reports on the challenges, solution architecture, application design, and the outcomes provided in the project. The methodological strategy was to review and analyze thoroughly one of the documents and deeply analyze this material of the case. These patterns included recurrent patterns in terms of implementation enablers and barriers that were identified, coded, and interpreted. Such areas of interest were how technical and business realms are bridged (e.g., citizen developers in use), the reality of the practical problems of process re-engineering, the governance in a low-code context, and the perceived cost to the workflow efficiency and data management. This approach enabled a discussion of the how and why behind the technical process to create insights into the lived experience of the process of implementing low-code AI functionality in an enterprise context to achieve the goal of intelligent automation.

7. Case Selection

The Agriculture and Horticulture Development Board (AHDB) is our case organization. The AHDB provides a real-world application of Microsoft Power Platform and AI Builder. Their implementations show how organizations are using AI with low-code technologies to automate business processes, streamline operations, and achieve business transformation goals. A single-case design was deemed suitable as it allowed an in-depth exploration of organisational practices, governance, implementation challenges, and stakeholder experiences associated with integrating AI Builder into existing operations. The identified case also offers strong contextual evidence to shed light on the socio-technical dimensions contributing to successful AI adoption within a low-code development ecosystem.

7.1. Data Collection

The sources included multiple types of qualitative data to allow for a thorough examination of the implementation process for AI Builder. Specifically, sources used to compile the information that form this study included organizational documents, implementation project reports, Microsoft Power Platform product documentation, technical project documentation, and publicly available organizational documents pertinent to the specific case organization. Triangulation of data from multiple sources enhanced the credibility of the findings. Information collection included identifying the specific organizational practices that governed AI Builder implementation, the mechanisms used to ensure its implementation process, how the implementation process was governed, and the individual experiences of users, along with their challenges when implementing and using AI Builder.

7.2. Data Coding Procedures

The qualitative data were managed and processed using systematic coding with an inductive coding methodology. Firstly, the documents were coded using open coding to determine significant and similar themes throughout. Secondly, similar codes were consolidated together using axial coding to explore the relationships between categories relevant to organizational readiness, governance, citizen development, AI adoption, and implementation barriers. Finally, a final selective coding process was used to synthesize the above into major themes and the main themes in response to the question.

7.3. Thematic Analysis

Using Braun and Clarke's six-step approach to thematic analysis (Familiarisation, coding, identifying themes, reviewing themes, naming and defining themes, producing a report), the coded data was analysed. A range of dominant themes relating to the aspects of organisation, readiness, governance, citizen developers, democratization of AI, and outcomes of implementation were extracted by the researchers from the analysed data through coding, the review of themes, and the defining of the major themes. This approach provided an interpretative case that was coherent with the approach to qualitative research and gave rise to the final findings of the study.

7.4. Trustworthiness and Qualitative Rigor

To make this qualitative case study methodologically rigorous, this qualitative case study followed Lincoln and Guba's (1985) four trustworthiness criteria: credibility, dependability, confirmability, and transferability. Credibility was supported through using a variety of data sources, such as organizational reports, Microsoft Power Platform documentation, and implementation reports, which provided evidence for triangulation to strengthen data credibility. Dependability was addressed through the research process documentation that was transparent and detailed, which included documentation regarding the coding and theme analysis processes of the data. Confirmability was supported through basing interpretation on evidence found from the research data rather than the assumptions of the researcher, with interpretations based on document evidence.

7.5. Findings and Results

The qualitative review of documented AI Builder applications demonstrates that there are common trends to the integration of low-code AI into enterprise processes. These results help reveal the prospective change and the subtle socio-technical issues that arise throughout the process of democratizing AI development in complicated organizational ecosystems.

The major discovery focuses on the development of a citizen developer empowerment model that transforms the whole solution delivery process. This change paradigm provides a new implementation model in which the business process owners directly instantiate intelligence into their processes, and this has a dramatic accelerating effect on their development cycles [1]. A second important discovery is the patterns of hybrid architecture that develop in successful implementations. Organizations continue to go beyond individual AI models to develop integrated systems with multiple components of Power Platform. Such architecture will enable companies to take advantage of the specialization of AI Builder and still have strong data management and user experience [7].

The implementation barriers have also been identified as having significant aspects beyond technical consideration. Although the technical barrier to the application of AI is reduced, challenges to its implementation on the organizational level in relation to data governance, change management, and skill translation become increasingly more evident [6;4]. Moreover, the magnitude of impact is different depending on the method of implementation. Departmental-specific point solutions have faster payoffs but minimal organizational change, and enterprise-wide platforms have more significant cultural shifts to data-driven collaboration but demand more significant change management [2].

The results suggest that the successful implementation of AI Builder can introduce a virtuous cycle according to which the first achievements contribute to gaining confidence and competence in more serious projects. This development trajectory corresponds to the state that researchers define as the transition of simple robotic process automation to intelligent automation that processes unstructured data and can make predictions [5]. The qualitative data point to the fact that the low-code approach does reduce the technical implementation barriers but the human and organizational factors, specifically in terms of trust towards AI outputs, process redesign, and governance, are the deciding factor of success or failure [3].

Collectively, these themes illustrate that effective AI Builder deployment is determined not merely by technological functionality but also hinges on organizational and socio-technical prerequisites [35; 36]. Governance ensures that the organization is prepared for the responsible implementation of AI, organizational preparedness ensures the efficient management of organizational change, and citizen development fosters a symbiotic relationship between business users and IT experts [14; 15; 18]. The results align with socio-technical systems theory's perspective, suggesting that effective innovation is dependent upon the interplay of human and social as well as technical factors [19; 36]. In other words, results concur with earlier research which confirms the importance of strong governance, organisational readiness and cross-functional collaboration as enablers for a sustainable low-code AI implementation and intelligent automation at the enterprise level [4; 6; 16].

7.6. Discussion

The results of AI Builder deployments demonstrate a core democratization paradox, consisting of the fact that low-code platforms have the technical capability of enabling citizen developers to develop AI solutions, but that the implementation entails complex socio-technical processes that may unwillingly support existing power structures and expertise boundaries. This finding is found in three main critical tensions that occur between the promise of democratization and organizational implementation realities.

The initial conflict is between technical accessibility on the one hand and organizational readiness on the other hand. Nonetheless, case studies indicate that implementation success is not always based on technical factors but rather on organizational factors, especially quality of data, standardization of processes and governance structures. As noted in the studies of the obstacles to AI adoption, the shift to an AI-powered organization is mostly a change management issue [12]. This implies that low-code AI platforms do not avoid problems in implementation but redistribute the bottleneck of implementing it between technical and organizational capacities.

A second more fundamental tension comes about between the centralization of governance and democratization of development. Although nowadays, business users can construct elaborate AI workflows, organizations need to establish new governance solutions that will guarantee the solutions comply with ethical standards, security controls, and architecture [2]. This results in what could be described as the power of the so-called governance gap in the democratization of low-code AI, where the development strengths exceed the governance processes.

The third tension is expertise paradox in low code environment. Although citizen developers may understand their domain knowledge best, they are usually deficient in systematic thinking abilities to come up with robust and scalable AI applications. It may result in solutions addressing the short-term problems but leaving a long-term technical debt or integration problem [3]. The collaborative model builds upon domain knowledge and preserves architectural integrity, implying that a successful democratization of AI might entail reconsideration of the organizational roles instead of the straightforward removal of technical obstacles.

These tensions explain why they lived through the experience of implementation, which is qualitative, brings into perspective the intricacies which cannot be found in technical capability evaluations. The use of AI in organizational processes is what scientists call a socio-technical system in which the capabilities of technologies interface with social processes, organizational settings, and human actions [10]. Besides, the results bring up key ethical implications of AI democratization. The black box aspect of most AI models along with the lack of data science knowledge among citizen developers poses the risk of unwanted bias spread or ethically questionable uses [11; 13].

In theoretical terms, this study supports the applicability of the socio-technical systems theory by confirming that successful implementation of AI Builder hinges on a combination of technical capabilities, organizational configuration, and human involvement, and not solely the technical innovations themselves [19; 35; 36]. In turn, the results also provide a basis to support organizational change and innovation studies that stress the importance of governance structures, organizational readiness, and the participation of citizen developers in digital transformation efforts and responsible AI [14; 15; 18].

7.7. LIMITATIONS

There are several limitations to this research. Firstly, the research adopted a qualitative single-case study approach that draws on existing documents showing the implementation of AI Builder in the Agriculture and Horticulture Development Board (AHDB), and consequently, this might influence the transferability of the findings to other organizational environments [4; 19]. Secondly, due to reliance upon predominantly published and publicly available organizational documents and reports rather than actual interviews and observational data, it may have limited the stakeholder perspectives collected by the research [6; 14]. Last, given the dynamic progress of AI technologies and low-code platforms, implementation practices and governing mechanisms will likely continue evolving in the future [15; 16]. Limitations: Aside from these limitations, the present research has a great deal to tell us regarding the socio-technical conditions of the adoption of AI Builder and forms a base for subsequent empirical research [35; 36].

8. Future Research Directions and Recommendation

The qualitative insights from AI Builder implementations reveal several critical gaps in current understanding that warrant targeted investigations. Future research should evolve from documenting implementation patterns to developing theoretical frameworks and practical methodologies that address the socio-technical complexities of low-code AI democratization.

Methodologically, longitudinal studies monitoring organizations in the entire lifecycle of the AI Builder adoption are urgently needed. Most of the current studies provide cross-sectional glimpses of the implementation, although to gain an insight into how the low-code AI capabilities can change the way organizations do things, it is necessary to monitor the change over time. The prospective research ought to utilize mixed-method design, where quantitative measures will be incorporated with qualitative nuances through several stages of execution [7]. It should also be investigated what

comparative approaches can be used to test the patterns of implementation in various organizational settings to determine which situational elements may contribute to the success.

In theory, future studies need to come up with theoretical frameworks that should be used to explain the democratization paradox in low-code AI settings. The existing literature has identified the challenges in implementation, but it does not provide any detailed theoretical frameworks that can predict the interaction between technical accessibility, the organizational readiness, and the governance structures to bring about implementation outcomes. The next steps in work should be based on various theoretical approaches, such as socio-technical systems theory, the diffusion of innovation, and organizational learning, to develop testable models of the adoption of low-code AI [5]. Specific theoretical concern must be given to the issue of governance disjuncture between the ability of citizens to develop and the system of control within the organization that may result in a new model of governance targeted specifically at democratized AI.

In practice, the implementation patterns that balance innovation and governance should be found and confirmed by research. Although case studies report on different strategies, a methodical analysis of the models of implementation would offer evidence-based solutions to organizations [1]. Next-generation studies can come up with and experiment with assessment structures to assist the organizations in determining their preparedness to adopt low-code AI on various levels including data infrastructure, maturity of the processes, availability of skills, and governance potentiality. Moreover, scalability challenges should be studied in the real world with the goal of exploring how effective departmental applications could be developed to enterprise platforms without introducing fragmentation and technical debt.

According to these research directions, there are a number of practical recommendations that can be made to organizations that are adopting AI Builder. To start with, follow a progressive implementation strategy where initial implementation should be confined and high-value use cases to gain confidence and ability to address more complicated problems [6]. Second, form hybrid development teams that merge citizens developers with technical architects so as to take advantage of domain knowledge and integrity of solutions. Third, adopt the progressive governance systems that offer suitable guardrails without suppressing innovation that may involve risk-based approaches that place a greater restraint on higher-risk applications [2]. Fourth, invest in lifelong learning channels that enable citizen developers to transform their simple automation to more advanced AI applications as they build sensitivity of ethical concerns [10]. Lastly, develop feedback and assessment systems that will systematically record the experiences of implementation to make informed contributions to organizational practice and the overall body of research.

The power of low-code AI platforms goes beyond the technical capacity to empower an organization. But this potential cannot be achieved without going beyond the technical implementation in order to consider the intricate interplay between technology, processes, and people which defines successful adoption. Future studies that shed light on these social-technical processes will give valuable directives to organizations that want to unleash AI democratization as it handles its internal complexities and challenges.

8.1. Conclusion

This qualitative paper clarifies that the incorporation and deployment of AI Builder to the Microsoft Power Platform is a deep socio-technical project, which goes much beyond the adoption of a low-code platform. The platform positively addresses the problem of decreasing the technical barrier to developing AI, which allows citizen developers to develop faster and deliver solutions faster, yet it also introduces and exacerbates major organizational issues regarding governance, the readiness of data, and organizational culture change.

The implementation experiences analysis shows that there is a critical paradox of democratization in the implementation of innovations, the accessibility that promotes innovation may bring about governance gaps, technical debris, and ethical risks unless it is well managed. The technical capabilities of AI Builder are not the only factors that define success, but rather the capability of an organization to manage the complex dynamics of people, processes, and technology. Thus, to fulfill the transformative potential of low-code AI, one needs to be strategic, selectively empowered, and governed, build hybrid relationships between business and IT, and invest in lifelong learning. Finally, this study finds that AI Builder is an effective accelerator of intelligent automation, but its sustainable and responsible application depends on the ability to identify and resolve the complex human and organizational dynamics that characterize the actual passage between AI experimentation and scaled and ethical effect.

Author Contributions

Pullaiah Chowdary Vutla[1]: Writing – original draft, Abstract, Introduction, Methodology, Conceptualization and supervision.

Triveni Yenugu[2]: Writing – Review & editing, Validation, Formal Analysis and Supervision.

Conflicts of Interest

The authors state that they have no financial or personal connections that could have affected this work. The study received no funding or support from any commercial or external organization and was carried out independently. There are no competing interests related to the methods, results, or conclusions of this study.

9. REFERENCES

[1] S. Y. Khaga, "Intelligent Automation with Power Platform: Transforming Office 365 Workflows with AI-Powered Solutions," *Journal of Computer Science and Technology Studies*, vol. 7, no. 4, pp. 409-416, 2025. https://doi.org/10.32996/jcsts.2025.7.4.49

[2] V. R. Boppana, "Automation Using Power Platform," *SSRN*, 2023. [Online]. http://dx.doi.org/10.2139/ssrn.5134991

[3] M. Brown and N. Patel, "Challenges in enterprise automation: Security and scalability," *IEEE Transactions on Software Engineering*, vol. 49, no. 4, pp. 567–582, 2023.

[4] R. Johnson and S. Lee, "Low-code platforms and organizational efficiency: A case study approach," in *Proc. International Conference on Information Systems*, 2024, pp. 101–110.

[5] S. Lee, *AI-driven automation: Principles and applications*. Wiley, 2022.

[6] J. A. Smith and E. Carter, "Low-code platforms for business process automation: A review," *Journal of Information Systems*, vol. 45, no. 2, pp. 123–140, 2023.

[7] L. Wong and D. Kim, "AI Builder in Microsoft Power Platform: Performance and applications," *Journal of Artificial Intelligence Research*, vol. 52, no. 1, pp. 45–60, 2025.

[8] A. Loay and S. Mousa, "Automated classification of Arabic script styles using enhanced CNN frameworks," in *IEEE International Conference on Computer and Applications (ICCA)*, 2024, pp. 1–6.

[9] M. Redknap, "Why you should start using the Microsoft Power Platform in 2025," Intelogy, Jun. 25, 2025. [Online]. https://www.intelogy.co.uk/blog/why-you-should-start-using-the-microsoft-power-platform/

[10] J. Amann, A. Blasimme, E. Vayena, and D. Frey, "Explainability for artificial intelligence in healthcare: a multidisciplinary perspective," *BMC Medical Informatics and Decision Making*, vol. 20, no. 1, p. 310, 2020. doi: 10.1186/s12911-020-01332-6.

[11] G. Briganti and O. Le Moine, "Artificial Intelligence in Medicine: Today and Tomorrow," *Frontiers in Medicine*, vol. 7, Art. no. 27, Feb. 2020. doi: 10.3389/fmed.2020.00027.

[12] T. Davenport and R. Kalakota, "The potential for artificial intelligence in healthcare," *Future Healthcare Journal*, vol. 6, no. 2, pp. 94–98, 2019. doi: 10.7861/futurehosp.6-2-94.

[13] P. Esmaeilzadeh, "Use of AI-based tools for healthcare purposes: a survey study from consumers' perspectives," *BMC Medical Informatics and Decision Making*, vol. 20, no. 1, p. 224, 2020. doi: 10.1186/s12911-020-01191-1.

[14] Rokis, K., & Kirikova, M. (2023). Exploring low-code development: A comprehensive literature review. *Complex Systems Informatics and Modeling Quarterly, 36*, 68–86. https://doi.org/10.7250/csimq.2023-36.04

[15] Viljoen, A., Hein, A., & Krcmar, H. (2026). Low-code development platform ecosystems. *Electronic Markets, 36*, Article 12. https://doi.org/10.1007/s12525-025-00848-x

[16] Piridi, S., Asundi, S., & Hyatt, J. C. (2025). Hyperautomation with Power Platform: Merging AI, RPA, and low-code for business efficiency. *International Journal of Advanced Engineering Research and Science, 12*(4), 54–69. https://doi.org/10.22161/ijaers.124.7

[17] Muppaneni, R. K. (2024/2025). AI Builder and Power Automate: Simplifying business processes in Dynamics 365. *International Journal of Artificial Intelligence, Data Science, and Machine Learning.*

[18] Piridi, S., & Koduri, N. K. (2023). Responsible AI-Embedded Crisis Resilience Platforms via Power Platform + AI Builder: Integrating Ethical AI into Critical Response Systems. *Journal of International Crisis and Risk Communication Research.* https://doi.org/10.63278/jicrcr.vi.3104

[19] Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications. https://www.researchgate.net/profile/Jan-Armstrong/publication/256294652_Naturalistic_Inquiry/links/02e7e5222605c57278000000/Naturalistic-Inquiry.pdf

[20] Khaga[1], S. Y., & Malhotra, A. (2025). Harnessing Artificial Intelligence for Adaptive Workflow Management in Microsoft Power Platform.

[21] Khaga[1], S. Y., & Venkatesh, P. (2025). Integrating Generative AI and Power Platform Tools for Smarter Business Process Automation.

[22] Khaga[1], S. Y., & Rodriguez, M. E. (2025). Intelligent Automation with Microsoft Power Platform: Leveraging AI to Transform Office 365 Workflows.

[23] Charles, F. (2023). Designing Virtual Agents for Patient Intake Using Power Virtual Agents and AI Builder.

[24] Debbadi, R. K., & Boateng, O. (2025). Developing intelligent automation workflows in Microsoft Power Automate by embedding deep learning algorithms for real-time process adaptation. *Int J Sci Res Arch*, *14*(2), 802-820.

[25] Khaga[1], S. Y., & Srinivasan, P. (2025). Assessing the Future of AI-Integrated Workflow Automation in Microsoft 365 and Power Platform Environments.

[26] Jameel, Z. (2025). Artificial Intelligence (AI) integration with PowerApps.

[27] John, I. (2023). Intelligent Document Processing in Pharmaceutical Compliance Using RPA and Low-Code AI.

[28] Michael, I. (2025). Real-World Applications of No-Code AI in Business Operations. *Preprint*.

[29] Gabriel, S. (2024). Scalable Support Ticket Orchestration Using AI Builder and Power Automate in Enterprise Environments.

[30] Khaga[1], S. Y., & Gupta, A. (2025). AI-Driven Workflow Optimization: Enhancing Productivity in Office 365 Using Power Automate and Power Apps.

[31] Singh, A. A. S., Kothamaram, R. R., Rajendran, D., Deepak, V., Namburi, V. T., & Maniar, V. (2024). A Review on Model-Driven Development with a Focus on Microsoft PowerApps. *International Journal of Humanities, Science Innovations and Management Studies*, *1*(1), 43-56.

[32] Adenekan, T. K. (2023). Risk-Aware Automation of Regulatory Reporting in the Pharmaceutical Industry Using Power Platform.

[33] Adil, S. J. (2024). Exploration of Microsoft Copilot Use Cases for Process Optimization in SMEs-a Proof of Concept with syscon Consulting.

[34] Piridi, S., Asundi, S., & Hyatt, J. C. (2025). Cross-Environment Deployment Strategies for Power Platform Solutions–Investigating best practices for managing multi-environment deployments, from development to production, using managed. *International Journal of Advanced Engineering Research and Science*, *12*(4), 610936.

[35] Tarhan, A., Turetken, O., & Reijers, H. A. (2020). Business process maturity models: A systematic literature review. *Information and Software Technology, 129*, 106429.

[36] Mendling, J., Pentland, B. T., & Recker, J. (2020). Building a complementary agenda for business process management and digital innovation. *European Journal of Information Systems, 29*(3), 208–219.

[37] P. C. Vutla and T. Yenugu, "AI-Driven Energy-Efficient Resource Management in Cloud Computing," *2026 3rd International Conference on Integrated Intelligence and Communication Systems (ICIICS)*, Kalaburagi, India, 2026, pp. 1-8, doi: 10.1109/ICIICS67880.2026.11483624

[38] Vutla, P. C., Yenugu, T. (2026). Security and Privacy Implications of Microsoft 365 Copilot and GenAI Integration in Enterprise Environments. *American Journal of Information Science and Technology*, *10*(2), 66-74. https://doi.org/10.11648/j.ajist.20261002.11

[39] P. C. Vutla and T. Yenugu, "Intelligent Intrusion Detection with Secure Cloud Storage Enabled by a Hybrid DNN-FNN Framework," *2026 Fourth International Conference on Augmented Intelligence and Sustainable Systems (ICAISS)*, Trichy, India, 2026, pp. 401-406, doi: 10.1109/ICAISS68683.2026.11526496