



Review on Robotic process automation employed to digitize a business requirements

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Abstract

In the current study, the review of Robotic process automation employed to digitize business requirements is discussed. This context briefly discussed the main objectives of the study. The characteristics of robotic process automation which is utilised to digitize a business requirement are discussed in the current context. In this study, the secondary data collection method is used to collect the information to examine the main focus of the study. Qualitative data is used in the study to get the accuracy of the collected data. This data help to maintain the study properly.

Keywords: Robotic process automation, business requirements, rocket bot, blue prism, UiPath.

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Introduction

For this context, a brief discussion will be done about the robotics process automation to digitize the requirements of the business. The main objectives of the study will also be mentioned. In this present study, the characteristics of robotic process automation which is used to digitize business requirements will also be discussed. Several characteristics such as automation anywhere, IBM robotic process automation, UiPath, blue prism, and rocket bot will be discussed in the context briefly.

Aims and objectives

Aims: The current study is aimed at the review of Robotic process automation employed to digitize a business requirement.

Objectives:

- To analyse the characteristics of robotic process automation and its influence on digital transformation.

The characteristics of robotic process automation and its influence on digital transformation

Teams can be developed by robotic process automation. The modification of the internal

process of the business and the changing digital transformation can be conducted by robotics process automation (Ivančić et al. 2019). Every business and function will be impacted by the RPA from the security of data to the implementation, improvement and deployment of the low code. There are top five characteristics which are used in digital transformation (Plattfaut et al. 2022). The characteristics are automation anywhere, IBM robotic process automation, UiPath, blue prism, and rocket bot. The characteristics are described below:

Year	Percentage
2017	0.8
2018	1.9
2019	2.9
2020	4
2021	5.4
2022	7.2
2023	10.4

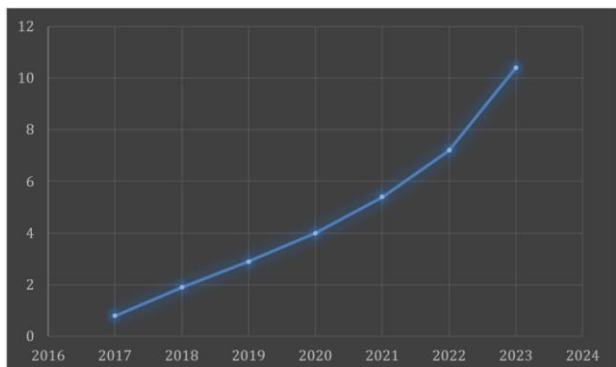
Table 1: Robotic process automation

(Source: Created by Author)

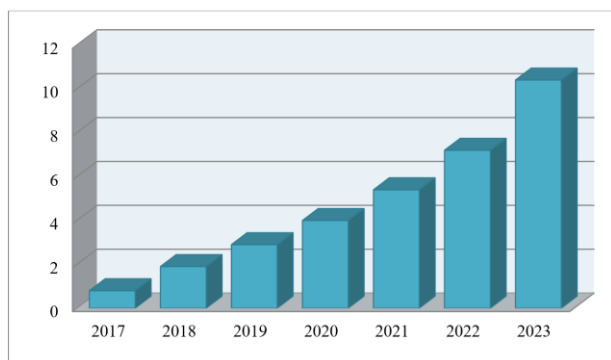
- Enabling businesses to automate the process of business the automation anywhere which



robotic process automation is used from beginning to end (Syed et al. 2020). The three main elements of automation anywhere are bot creator, control room, and bot runner.



- The use of intelligent robots in any process requires efficiency, speed and consistency at the time of reducing the possibility of errors. The action of a human user is mimicked by Robotic Process Automation.



Graph 1: Percentage of using Robotic process automation

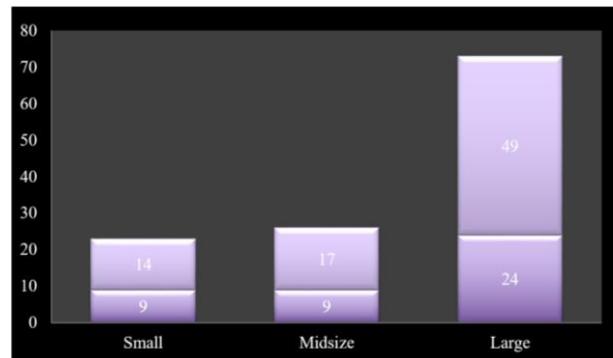
(Source: Created by Author)

- A wide range of the processes business is automated by the UiPath robotic process automation (Siderska and J. 2021). This solution is the most accepted and looking forward solution. Collaborating with others and automated repetitive tasks will be conducted using this platform.

- In the enterprise, robotic process automation blue prism is a global leader which helps to revolutionise the work of the people (Madakam et al. 2019). High-scale of automation is provided by digital; innovation.

- To create a fast and easy robot rocket bot which is a robust solution is used. The variety in the business is automated by this including

insurance, banking, e-commerce, and logistics (Herm et al. 2020). AI and machine learning are used to make strong, solid and dependable robots and conduct and maintain their procedure. Sending information in dynamic forms the robot of customer service is used efficiently.



Graph 2: Use cases and application of robotics process automation

(Source: Created by Author)

The alteration of the business industry process with artificial intelligence makes the decreasing need for a skilled workforce. As a result of which around 5 million employment losses have been detected in the 2020 world economic report. Having the declining need of 10% overall business industry employability makes the flexibility of industry operation higher. If the existing previous issues of the business industry have been analyzed then it can be detected that skill shortage is one of them from which production loss has resulted. On the side of the business industry architect and engineering needs for suitable employment have been detected.

- **Lean business process**

The lean business process enhances the scope of involved cost wastage reduction through industrial waste emission controlling. If once the wastage gets decreased then the chances of output efficiency get improved for the business industry. Robotic technology brings the scope of accessing the waste production reduction potential. As per Abioye et al. (2021) modern technology that includes 3D printers enhances the scope of waste reduction and optimization profitability has been developed for the business industry. Growing pressure over the industry operation and upcoming business trend stability and growth potential will be developed only from the reduction of unnecessary costs.



● 3D printing

3D printing has become the widely applied technology that provides the scope of visualization for the complex and layered parts of business projects. Including this approach makes the developing opportunity of multi-purpose using scope for the business items that means cost involvement get reduced with this advanced technology.

● Brick laying and imaging technology

The reason for including modern technology in the bricklaying process is because it has been considered a time taking process of business industry operation. With this technology-induced operation chances of time-saving consequences build-up has been detected for the business industry projects. Niemela et al. (2019) stated that Doxel Inc. provided the opportunity for on-site working process investigation with robotics. From which systematic technology brings the opportunity of accessing vital information for the on-site operation in the business industry. Presence of scanning and accessing provide the scope of improving accuracy for the business industry operation.

● Robotics

Scaled robotics are included in the business industry project for remote controlling of the operational process. Drones and ground-based robotics have been considered an emerging approach that has been used for better investigation and surveillance of the business industry. Consistency in monitoring makes the secured process operating scope for the involved workforce in business projects. From this incorporated automation and robotics it has been predicted that market growth will be reached to \$126.4 million within 2025(Afsari et al. 2021). From this industry annual report prediction, it has been detected that the compound annual growth rate will be growing for the upcoming business year.

● Poor risk handling

It has been considered as one of the affecting issues that affect the quality and commitment of the UK project outcome. If the safety of UK business industry operation has been analyzed then it can be detected that proper investigation and identification of the risk associated with monetary and non-monetary both aspects is

essential. As per Frigione and Lettieri (2018) success and stability of business outcomes are dependent on the internal operation controlling practices. It can be the issues of project plan volatility; can be the poor monitoring process from which the ultimate concern of project assets security may arise.

● Structural issues

From the goal of business project operation scope of breaking down the whole work process and systematic structural build-up is formed. If the concern of over budgeting and time has been analyzed for UK business then it can be detected that poor structural strength makes the whole operation deficit in efficiency and transparency. Without a standard goal of operation chances of developing the potential of poor collaboration and team, performances can be detected. The scope of breaking down structure and on-site project investigation has been developed from automation. Without technology or automation integration chances of business production outcome concern formation can be detected.

● Communication gap

If the UK business project's internal and external members have been analyzed then it can be detected that the working team, project manager, clients and stakeholders, and technical and other responsibilities are present. Having an onsite and offsite working team so without proper communication chances of systematic outcome is quite difficult and confusing. Sigalov et al. (2021) mentioned that lack of communication enhances confusion and the gap in updated information makes the production unstable for the expected standard of the business operation. Without communication, collaboration can never be formed within a working team, and chances of repeated issues forming and affecting the quality and speed are common consequences.

● Lack of real value for project outcome expectations

It is another issue that clears the need for operation and enhances the real value of the project outcome. If the project has visibility scopes then the chances of identifying the potential scope regarding the project progression. The lack of automation and robotics approach makes the real value creation scope poor from which reliability issues have been



raised for the stakeholders and clients. With the updated process chances of on-time update delivery can be possible but in the absence chances of hindering productivity are detected. From which the chances of developing gap for project forecasting for the business industry have been formed

● Cash flow stress

If project assets have been observed then cost and time is the main factors that define the project progression outcome. The existing business process and the impact of outdated systems make the cost security poor. Chances of cash flow stress have been developed from multiple causes that include poor monitoring, structural issues, and knowledge of risks for the business industry market. Having a gap in covering the cash flow-induced stress makes the growing concern for the security of the assets (Mohammed et al. 2019). From which the probability of progression efficiency and profitability both will start to fall for the business industry project.

● Skill shortage

If the existing report on the UK business industry concerns has been evaluated it has been detected that skill shortage is one of the main identified concerns. Traditional Working patterns of the business industry develop the concern for efficiency coverage. Poor efficient staff availability makes a higher risk for the smooth project progression. Around 52% of project delay has been developed from skill-shortage concerns in the business industry. The gap in skill and collaboration makes the volatility increasing probability higher in each progression stage. Understanding the need to change implementation current issues of concern for the industry operation stability has been detected.

Methodology

Two of the data collection method are there such as primary data collection method and secondary data collection method, secondary data collection method is used in the mentioned study. The sources of the secondary data collection method are several books, journals, newspapers and websites. In this study, several sites help to collect the data. This process of data collection is effective to get various information about this

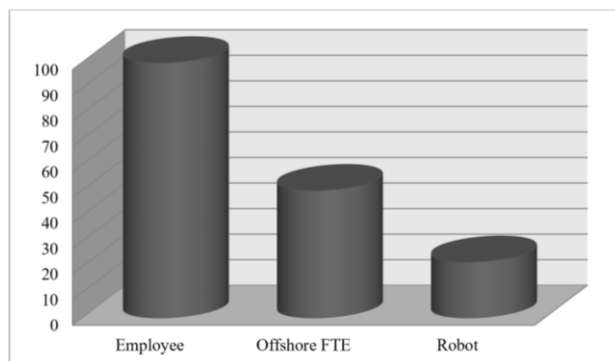
study. More websites help to get a large amount of data. The secondary data collection process helps to know the main objectives of the study. More data helps to know the various sides of the mentioned study. It helps to get detailed information about the study. Through the secondary data collection process, the source of the various data is getting and the source of the problems of the study is getting.

There are two types of data such as qualitative and quantitative. In this current study, qualitative data is used. The collected data should be analysed for getting the accuracy of data. Qualitative data is used in the mentioned study. This data helps to categorize the data. The statistical data helps to get accurate information about the mentioned study. Qualitative data helps to maintain the study properly. This data helps to understand the focus of the study and the problems and challenges are analyzed through this data. Through this data, brief information related to the study is getting. The qualitative data helps to maintain the quality of the mentioned study which helps to get the result without any complexities.

Data analysis

From the context, it is analysed that robotics process automation is an important aspect to digitize the requirements of the business (Gami et al. 2019). Several characteristics of the robotics process automation are there such as automation anywhere, IBM robotic process automation, UiPath, blue prism, and rocket bot. It is analysed that the three main elements of automation anywhere are bot creator, control room, and bot runner. The use of intelligent robots in any process requires efficiency, speed and consistency at the time of reducing the possibility of errors. This study also analysed that the variety in the business is automated by this including insurance, banking, e-commerce, and logistics (Ribeiro et al. 2021). AI and machine learning are used to make strong, solid and dependable robots and conduct and maintain their procedure.





Graph 3: Cost comparison
(Source: Created by Author)

Conclusion

From the above context, it is concluded that the characteristic of the robotics process automation has an important role to digitize the requirements of the business. The characteristics are automation anywhere, IBM robotic process automation, UiPath, blue prism, and rocket bot. Enabling businesses to automate the process of business the automation anywhere which is robotic process automation is used from beginning to end. The use of intelligent robots in any process requires efficiency, speed and consistency at the time of reducing the possibility of errors. High-scale of automation is provided by digital; innovation. AI and machine learning are used to make strong, solid and dependable robots and conduct and maintain their procedure. Sending information in dynamic forms the robot of customer service is used efficiently.

References

- Abioye, S.O., Oyedele, L.O., Akanbi, L., Ajayi, A., Delgado, J.M.D., Bilal, M., Akinade, O.O. and Ahmed, A., 2021. Artificial intelligence in the construction industry: A review of present status, opportunities and future challenges. *Journal of Building Engineering*, 44, p.103299.
- Afsari, K., Halder, S., Ensafi, M., DeVito, S. and Serdakowski, J., 2021. Fundamentals and Prospects of Four-Legged Robot Application in Construction Progress Monitoring. *EPiC Series in Built Environment*, 2, pp.274-283.
- Frigione, M. and Lettieri, M., 2018. Durability issues and challenges for material advancements in FRP employed in the construction industry. *Polymers*, 10(3), p.247.
- Gami, M., Jetly, P., Mehta, N. and Patil, S., 2019, April. Robotic Process Automation–Future of Business Organizations: A Review. In *2nd International Conference on Advances in Science & Technology (ICAST)*.
- Herm, L.V., Janiesch, C., Helm, A., Imgrund, F., Fuchs, K., Hofmann, A. and Winkelmann, A., 2020, September. A consolidated framework for implementing robotic process automation projects. In *International Conference on Business Process Management* (pp. 471-488). Springer, Cham.
- Ivančić, L., Suša Vugec, D. and Bosilj Vukšić, V., 2019, September. Robotic process automation: systematic literature review. In *International Conference on Business Process Management* (pp. 280-295). Springer, Cham.
- Madakam, S., Holmukhe, R.M. and Jaiswal, D.K., 2019. The future digital work force: robotic process automation (RPA). *JISTEM-Journal of Information Systems and Technology Management*, 16.
- Mohammed, A., Hasnain, S.A. and Quadir, A., 2019. Implementation of building information modelling (BIM) practices and challenges in construction industry in Qatar. *Journal of Engineering Research and Reports*, 9(1), pp.1-9.
- Niemelä, M., Shi, A., Shirowzhan, S., Sepasgozar, S. and Liu, C., 2019, May. 3D printing architectural freeform elements: challenges and opportunities in manufacturing for industry 4.0. In *Proceedings of the 36th International Symposium on Automation and Robotics in Construction (ISARC)* (pp. 1298-1304).
- Plattfaut, R. and Borghoff, V., 2022. Robotic process automation: a literature-based research agenda. *Journal of Information Systems*, 36(2), pp.173-191.
- Ribeiro, J., Lima, R., Eckhardt, T. and Paiva, S., 2021. Robotic process automation and artificial intelligence in industry 4.0—a literature review. *Procedia Computer Science*, 181, pp.51-58.

Siderska, J., 2021. The adoption of robotic process automation technology to ensure business processes during the COVID-19 pandemic. *Sustainability*, 13(14), p.8020.

Sigalov, K., Ye, X., König, M., Hagedorn, P., Blum, F., Severin, B., Hettmer, M., Hückinghaus, P., Wölkerling, J. and Groß, D., 2021. Automated payment and contract management in the construction industry by integrating

building information modeling and blockchain-based smart contracts. *Applied sciences*, 11(16), p.7653.

Syed, R., Suriadi, S., Adams, M., Bandara, W., Leemans, S.J., Ouyang, C., ter Hofstede, A.H., van de Weerd, I., Wynn, M.T. and Reijers, H.A., 2020. Robotic process automation: contemporary themes and challenges. *Computers in Industry*, 115, p.103162.

