Developing Intelligent Robotic Process Automation (IRPA) on SAP Business Technology Platform to Drive Automation and Innovation in Enterprise Operations

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Abstract

In the modern scenario, this technology is largely used by different businesses to improve their position in the saturated market. The power of automation is extremely beneficial for an organisation. The research paper has properly analysed the ways in which Intelligent Robotic Process Automation (IRPA) service is integrated within the various enterprises. The study has analysed the multiple benefits that can befall an organisation if they use the automation technologies of IRPA through the SAP Business Technology Platform. Most importantly, the paper has evaluated how SAP IRPA can aid an enterprise in formulating innovative strategies in their business practices.

Keywords: SAP, IRPA, Automation, Enterprise operations, Business Technology Platform

I. INTRODUCTION

Due to rapid advancement in technology and innovation, different organisations are utilising them to boost their business potential. SAP's Business Technology Platform helps to bring together and analyse data and different kinds of statistics. The research paper will comprehensively explore the concept of Intelligent Robotic Process Automation (IRPA). It will further analyse how the IRPA technology on the SAP Business Technology Platform is implemented. In the final portion, the research paper will assess how SAP IRPA helps different enterprises leverage the power of automation and bring innovation to their operations.

II. EXPLORING THE CONCEPT OF INTELLIGENT ROBOTIC PROCESS AUTOMATION (IRPA)

The robotic automation process is an advanced technology that minimises manual labour in different business processes. The concept of IRPA is somewhat different from the conventional automation approaches. In traditional automation, the different steps are needed to be hard-coded within the system. On the other hand, intelligent robotic process automation leverages the power of artificial intelligence and machine learning to properly examine the ways in which different users carry out business operations[1]. In the modern business environment, there are a number of tasks that need to be performed by the employees of an enterprise. In such instances, IRPA enables them to minimise the operational work pressure with the help of different automation technologies. Steering away from the concept of traditional automation, intelligent robotic process automation employs robots and technologies that are highly aware of the different

contexts in which they are employed. The IRPA is absolutely critical in streamlining the different resources of an enterprise and process activities that can yield better business outcomes.

III. ASSESSING THE IRPA ON THE SAP BUSINESS TECHNOLOGY PLATFORM

Different enterprise business processes are effectively automated with the help of the SAP Intelligent Robotic Process Automation. It is also beneficial for designing process automation in the Cloud Studio through the creation of end-to-end workflows. One of the fundamental advantages of using SAP Intelligent Robotic Process Automation is that it is a low or no-code solution. Therefore, it can significantly reduce the amount of time that is taken to create and maintain automation[2]. It further allows an individual within an enterprise to become a citizen developer. This term is used to define someone who can create new applications or enhance existing systems without any kind of formal training. There are a number of features that are provided by SAP Intelligent Robotic Process Automation. These include cloud-based process automation design, which utilises a web-based interface to implement an automation process[3]. Furthermore, a number of third-party technologies are incorporated within SAP IRPA to properly capture, record and perform the actions. It needs to be mentioned that automation efficiency is measured by deducting the automated time from manual time. This result is further divided by the manual time and then multiplied by 100 to get the amount of time that is saved due to automation. In addition, the total amount of cost savings is calculated by deducting the automated cost from the manual cost per process. This amount is then multiplied by the total number of processes. All these equations are an important part of the overall automation process by the IRPA service that is provided by the SAP Business Technology Platform.

Figure 1: Logo of SAP

IV. HOW IRPA ON THE SAP BUSINESS TECHNOLOGY PLATFORM HELP TO DRIVE AUTOMATION AND INNOVATION IN DIFFERENT ENTERPRISE OPERATIONS

The higher authorities of these enterprises are able to intelligently integrate SAP IRPA in different sections of the organisation. In the financial department, automation and innovation are extremely essential. The different automation technologies that are available in the IRPA service can help to substantially improve the different financial processes. The enterprise is also able to minimise any kind of human error that can occur from manual actions[4]. For instance, SAP IRPA can help streamline the accounts receivable processes and substantially minimise the number of disputes that can occur from the differences between open account items and their payments. The SAP IRPA technology can also help in enhancing the process of ordering computer equipment according to the enterprise's necessities. In this context, the SAP IRPA can be

leveraged to automate the process of maintaining and repairing different equipment. In this manner, the enterprise can reduce downtime, enhance the reliability of equipment and considerably extend its lifespan. Therefore, the automation processes within SAP IRPA assist the authorities of an enterprise in coming up with innovative solutions for improving their overall working processes. In addition to this, proper management of the invoices is an extremely important task within an enterprise. The intelligent technology within the IRPA service can help extract important information from the documents that are received through email or other ways[5]. Supply chain management is an important sector of the enterprise that can really benefit from the implementation of the IRPA service provided by the SAP Business Technology Platform. Its implementation can aid monitor the quality of the products and detect any kind of defects early on[6]. In this manner, the enterprise can formulate innovative mitigation strategies to rectify the flaws and improve the product quality. Therefore, if the technology of IRPA is appropriately incorporated by an enterprise, it can help them to improve customer satisfaction. This is mainly possible since the majority of the business processes of the enterprise can be largely automated[7]. Automation is further helpful in bringing in new innovations within the enterprise, which can help it achieve a competitive advantage.
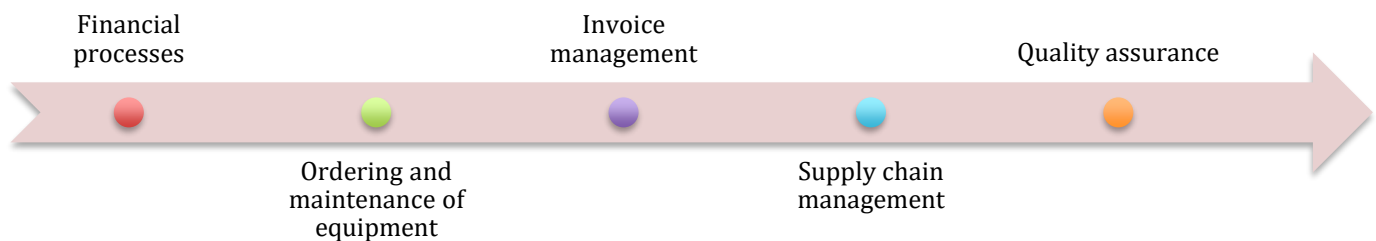

Figure 2: Ways in which SAP IRPA is implemented in different enterprises to drive automation and innovation

V. CONCLUSION

The IRPA service of the SAP Business technology Platform can help to integrate a number of automation in the business operations of an enterprise. However, it needs to be properly used in order to bring in innovation. The power of automation through SAP IRPA can be a game-changer for the enterprise.

Abbreviations and acronyms
- SAP - Systems, Applications & Products in Data Processing
- IRPA - Intelligent Robotic Process Automation

Units
- The execution time before and after automation is measured in seconds (s), minutes (m) and hours (h).
- Transactions per Second (TPS) unit is used to measure the total number of transactions that a bot is able to process within one second.
- Return on Investment (ROI) is measured in % which denotes the financial benefits of an enterprise from investments in automation.

Equations
- $\text{Efficiency}(\%) = (\text{Manual Time} - \text{Automated Time}/\text{Manual Time}) \times 100$
- $\text{Cost Savings} = (\text{Manual Cost per Process} - \text{Automated Cost per Process}) \times \text{Number of Processes}$

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