OPPORTUNITIES AND CHALLENGES OF ROBOTIC PROCESS AUTOMATION (RPA) ADOPTION IN BUSINESS PROCESS

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ABSTRACT

Robotic Process Automation has gained momentum in the recent time. Some of the top corporate have taken initiatives to towards implementing the RPA in various business processes and are claiming about reaping favorable outcome. Many research studies have acknowledged economic and performance efficiency of RPA implementation. However, it is too early to say this brings desired anticipated outcome. This technology shift expected to change various business models and mode of operations across different sectors. It is important to evaluate this transformation on challenges and opportunities parameters for effective implementation and cost benefit analysis. This study aims to understand what RPA means and how does it bring cost effective benefits with greater efficiency and accuracy. Further this study enlists the challenges of RPA implementation.

Introduction-

Technology and competition is moving at an unprecedented pace and is expecting business houses to be in-line with change to avoid being peril and absolute. Executives are using increasingly broad range of technology to increase competitive advantage (Bourne, 2017). Robotic Process Automation is one such area which is promising greater operational benefits and costs, which is why business process or workflow automation has been growing for the last decade (Bourne, 2017).

RPA is replacement of man with bots for repetitive, rule based business process actions, these bots mimic action of worker would perform on computer. With RPA business can create digital workforce that execute tasks faster, more accurate at cost effective. It also helps the organization to achieve leaner and more efficient work force (NIIT, 2016). For accelerating productivity gain, RPA must be implemented on key corporate functions which are repetitive, standardized, transactional process and activities such as finance, compliances, treasury and marketing (Zamkow, 2017). It is the time for organizations to ensure smooth transition of RPA adoption. Benefits offered by RPA has created a big buzz in business environment, early adopters have also acknowledged its importance and cost effective results. In this paper an attempt is made to evaluate benefits and challenges of RPA implementations.
Objectives of the study

This research attempts to study following objectives

1. To study the opportunities and benefits of RPA to organization.
2. To study challenges of RPA implementation in organization.

Research methodology

This is a conceptual study. RPA is emerging technology and has not yet been widely adopted and implemented by many organizations, therefore, little research work has been done in this regard. In this research an attempt is made to study the benefits of RPA implementation in business process. White papers of RPA service providers; like UiPath, Blue prism, PEX etc have been considered. Further the study attempts to enlist challenges faced by organization in implementation of RPA, whitepapers of early adopters like Capgemini, Infosys, Canon, KPMG, PEGA etc have been studied and referred. Few research papers published by national and international journals have been referred. The research also attempts to study the application of RPA in business process of different sectors.

Research findings

1. Why buzz for RPA?

Robotic Process Automation is having a greater potential in making the process smoother and simpler across different sectors and industries. It is helping the organizations in different aspects some of which are summarized below:

1.1 Decreased cost- There is an increased pressure from internal stake holders to reduce the costs and improve cost effectiveness (Subramanian.R, 2015). RPA has potential to reduce the cost FTE (full time employee) deployed to complete the task/process by up to 2/3 of human cost (NIIT, 2017), (Kumar, Satish and Kulkarni, 2017), (Deloitte, 2016). Most of the executives cite RPA will drive 73% productivity increase and 60% cost reduction (Bourne, 2017), (Lamberton, Brigo and Hoy, 2016), (KPI, 2017). In addition small scale RPA application can be developed at low cost. Its adoption at early stage promises opportunities to reduce labor cost by 60-80% (Dorr, Greeling, and O’Connor, 2016). It can provide end to end service and solution that will help to cut the costs and also helps in adding value to the service provided (Khalesi, Orr and Kurney, 2016)

1.2 Improved efficiency- Robots/ Bots don’t require paid time off and can be fully utilized to operate round the clock (Korhonen, 2016) (NIIT, 2016). RPA has the potential to reduce the processing time up to 40% by deploying multifold gains to the existing process and resources (KPI, 2017). Another added advantage it can offer is removal of error rate (Muraskin, Shatsky and Iyengar, 2016) (Canon, 2016) which results into controlling wastage cost.

1.3 Scalability and flexibility- Robots can be deployed or reassigned for given process where more volume is required as per the need of business (NIIT, 2016), (KPI, 2017). Data for process improvement- Undiscovered bottleneck can be identified using data from robotic process performance and further optimization which leads to employee satisfaction. Human capacity is difficult to scale in fluctuating demand situations leading to backlogs or overcapacity in contrast; robots can be deployed and reassigned as per business requirement (Dorr et al 2016), (Canon, 2016).

1.4 Employee satisfaction- Robotic Automation removes many of mundane and unsatisfying tasks which are presently performed by human teams (Zamkow, 2017).

Employee staff can be assigned with complex and challenging tasks/ jobs which demand cognitive thinking and strategic planning (Kumar et al, 2017). Time available can also be used for value added activities which leads to employee satisfaction.

1.5 Customer satisfaction- With reduced error, improved efficiency and more accurate information leads to quality service delivery for customers (Fujitsu, 2016). The ability to serve the customer increases. Enhancing the compliances (NIIT, 2016).

1.6 For better resource allocation- RPA is all about allocating resources better at lower cost. It is engaging people to do higher order strategizing and problem solving (Bourne, 2017)

1.7 No need for IT system change- Improving without radically transforming, benefits are possible without modernizing existing systems. RPA is easy to configure, developers don’t need to know the IT skills for its adaptability.

1.8 Audit ability and consistency- Error rate in repetitive monotonous routine task performed by human are prone to errors. Further inconsistent application of rule will lead to operational error; however robots deployed to perform such tasks follow same set of rules and norms with consistency and low error rates (Fujitsu, 2016). The jobs performed by robots are highly accountable and can provide corrective action (Canon, 2016), (NIIT, 2016), (KPI, 2017), (Lacity, Willcock, 2016).

2. Implementation of RPA in Business process in different sectors

There are two types of RPA implementation, first being automation a part of business process by adopting combination of bots and human may work more efficiently and economically. Bots can be used to help in collecting and accessing information from multiple...
sources to support human agent in servicing client calls. Another successful implementation of RPA can be in processing change of customer information in multiple systems.

The second type is fully automating the whole business process without single touch point of human.

1. **Insurance sector**
   RPA can be effectively implemented in insurance business process for the tasks like claim processing, policy administration, electronic fund transfer, agent change (NIIT, 2016). Infosys Consulting has implemented the robotic process automation in the insurance industry with the key objective of faster implementation and quick return on investments. Further it also benefits them in terms of reduced operational cost and improved efficiency (Fischer, Meli, 2017), (NIIT, 2016).

2. **Mortgage processing**
   In recent times mortgage fraud is rising at a faster rate. Companies are undertaking different corrective measures in order to overcome the losses due to fraud. By the implementation of RPA lenders have loan orientation systems (LOS) that interfaces with fraud detection applications, enabled with predictive analytics, to determine the risk propensity of a given loan (Kumar et al, 2017).

3. **AML (Anti Money Laundering) and KYC (Know Your Customer)**
   Infosys as a financial institution has implemented the robotic process automation as a technology tool to address challenges like heightened regulatory scrutiny and the increasing cost pressures that are affecting their AML (Anti Money Laundering) and KYC (Know Your Customer) process. (Vysya, Shah, 2017)

4. **Banking, Finance and accounting services**
   In the field of Banking and Financial service the activities like asset transfer, cash disbursement and portfolio tax lot analysis are automated by adopting the robotic process automation. Financial services like assets transfer, cash disbursement and portfolio tax lot tasks can be assigned to bots for efficient business process (NIIT, 2016). In the field of Finance and Accounting the activities like Invoice Processing, Multiple Reconciliation, Purchase Order Processing and Processing Expense Entries which involve more human resource and was time consuming can been replaced by robotic process automation for reducing the operational cost and making them less prone to errors. (NIIT, 2016)

5. **Media, Shared services and Travel industry**
   RPA can be implemented in media business process for Ad order entry and verification of Ads tasks (NIIT, 2016). Shared services are particularly ripe area for achieving business benefits with RPA (Lacity, Willcocks, 2016). 
   Fair audit, passenger revenue accounting and cargo transaction processing tasks can be replaced by RPA in travel industry business process (NIIT, 2016).

3. **Challenges:**

3.1 **Assessing the market**
   The Industries like banking, finance and Insurance have already adopted the RPA which is benefitting the industries with high cost savings and higher efficiency. However, reports by CIO (Chief Investment Officer) questions the legal implications of adapting Robotic Process Automation in the financial and legal industries (Zamkow, 2017).

3.2 **Operational Challenges**
   - Lack of operational knowledge and lack of real time visibility on part of the process the robot is working- RPA tools work best on a virtualized desktop environment, with appropriate scaling and business continuity setup. It is always not simple to understand business workflow and process. Many a times failure on part of understanding day to day task are responsible for failure of RPA (Ayehu 2015). Another common mistake is targeting RPA at a highly complex process, which results into significant automation cost; often these processes are tackled only because they are painful for agents (Lamberton et al, 2016).
   - It is easy to automate simple business process, however complex business process needs greater understanding of process complexity followed by testing and rework cycle (Lamberton et al, 2016). Lack of real time visibility of process in which robot is working will leads to failure. Most of the time failures of RPA adoption are due to gap between expected results and actual functioning of software robots.
   - Most of the times institutions tend to automate the AS IS / current process without doing Front to back assessment, may not yield the desired results.
   - Processes which are prone to frequent change may not qualify for automation given the change management cost, and time to manage the change. This makes it worse if the process is automated based on usage of internal sources of applications or systems. For example, public websites always tend to change their app design and may not inform end user. In such scenarios, time to market the change would be longer and may not be viable.
3.3 Change Management/ Poor Publicity
Resistance for change is the normal phenomena in any organization. Automation
Three types of challenges organizations can face due to change in operational process. They are:

i. Individual change
ii. Organizational change
iii. Transformational change

Press speculation about impact of RPA adoption on jobs (FT 2015) and the potential impact on off shoring and outsourcing (BBC, 2015) are in the tossed. The threat from technology replacing human workers and is largely dominating conversion on the emerging technology trend (Zamkow, 2017). Developing a ‘people plan’ strategy to introduce RPA technology was key focus (Ayehu, 2015). HR department within organization has to find flexible approaches to accommodate difficult transitions for staff (Lamberton et al, 2016). Resilience to automation originates from a mix of fear and misinformation, Further those working with teams and department, organizational change management plan, where teams can actively educate and support one another through the transformation process, when both individuals and organization management strategies are adopted, the company can move into the third stage of organizational change, by acknowledging impact of transformation on overall strategic planning, communication and leadership of the business. Resistance for RPA adoption by senior managers from IT is around 36 percent (PEX, 2016).

3.4 No strategic value as standalone technology
RPA cannot be implemented in isolation. It needs to be clubbed with cognitive solutions and digital enabled STP (Albert, Banerjee, 2016) for better results and efficient operating. In absence of machine learning the business process may breakdown.

Feasibility

The implementation of RPA in business process can be feasible only if certain criteria’s are met. In the first instance, the business process should handle the information that is easily accessible to the computer system (Epirion, 2016). The software robots can handle electronic mails than the hand written documents or speech (Epirion, 2016).

Robotic process automation as standalone solution may not yield higher benefit. Cognitive solutions combined with Robotics process automation would add great value to stakeholders.

Higher the reusability component lower is the cost to achieve the automation. Leveraging reusability and creating utilities in providing managed services across clients using cloud platforms, makes the automation most cost effective and true value proposition.

Automating existing process without challenging status-quo may not be effective. Automation should be considered as final option after exploring opportunities to eliminate the process. If not elimination, organizations should explore the possibility of standardization before automation. Automation should be followed by transformation, as last step.

CONCLUSION:

Enterprises are eager to employ automation of all types, the complexity of offering an RPA led solution depends both on nature of the work to be automated, and an extensive audit of an organizations ability to successfully adopt it as a part of an IT structure (Zamkow, 2016). A complete automation architecture can support and guide efforts towards effective deployment of bots in business process.

REFERENCES:

2. Ayehu, (Sept 2015), “Getting a leg up on competition with robotic process automation”, Retrieved from
https://ayehu.com/challenges-implementing-robotic-process-automation/ on 06/02/2018
https://www.processexcellencenetwork.com/downloader/?d... On 9/2/2018
https://www.avanade.com/~/media/asset/brochure/process-automation-pov.pdf on 4/02/2018


7. Fischer P, Meli D, (January 2017) “Putting artificial intelligence to work in the insurance industry”, Infosys Consulting, retrieved from www.infosysconsultinginsights.com/.../InfosysConsulting_Whitepaper_RoboticProces... on 05/02/2018


