

Application and Evaluating of Modernity of Robotic Process Automation (RPA) in HRM - A Case Study

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ABSTRACT

Industry analysts have identified the scope of Automation everywhere and anywhere. The recent development in the field of automation is the Robotic Process Automation or RPA. These are in attribute which is designed to replace human workforce as a virtual workforce. RPA is an approach which is software-based process automation which coordinates the HR functions and actions through capturing and interpretations of existing applications and process. It acts as a virtual workforce which operates on a software which is used to reduce or replace the human interruption in the monotonous or ceaseless assignments and tasks. RPA can be employed to interact with existing practice and appliances without changing the current IT-panorama. The research topic forwards to learn and understand the past RPA projects and its implementation for attaining a competitive edge. This study focuses on the effectiveness of implementing RPA in HR department of the company through the circulation of questionnaires in order to obtain the response from the employees of all the departments in the organization.

Keywords: Appraising modernity and RPA (Robotic Process Automation)

1. INTRODUCTION

RPA is a clarification in which a 'robot' may take over the repetitive and standard task and actions that are presently carried out by the human beings. RPA cannot be considered as a physical machine, but it is software which basically acts as a effective helper/ worker in order to support the processes. The high benefit of RPA is that robots are capable to use the existing processes and systems (i.e., it can be made compatible with the existing processes and systems instead of changing the complete infrastructure). Then no important investment is needed for the replacement of HR systems. Robots are typically helpful in the processes which generally requires a lot of data processing. These includes: gathering information from XLS files and systems, copying data, running the information, checking data and its validity, reading and processing, give in to E-mails, entering data in HR schemes etc. RPA is defined as a solution in which a robot, or more simply a bot, can accomplish repetitive tasks of HR systems. As HR processes are usually repetitive and high in volume, RPA has the capacity to enhance HR processes which in turn helps n increasing cost-effectiveness and its efficiency. The complete HR process can be performed end-to-end by software robots with very minimum human intervention. Hence we can say that RPA automates HR processes that are monotonous, rule-based, and prone to error and time critical. It was the ERP (Enterprise Resource Planning), in the early 90's, trend that mechanical numerous horizontal events through industry dimensions – Money, Accounting, HR, etc. This was a journey that high companies undertook and there are numerous more which are still continuing on this journey. RPA is the next wave in technology and it gives the declaration of an increased efficiency, less errors & cycle time, and improved scalability.

IMPORTANCE OF RPA

Robotic Process Automation (RPA) is relatively a new technology which has tremendously managed to acquire attention in various fields of business, especially in the corporate environment.

The importance of RPA are as follows:

- **Cost Savings:** Approximately 30% of cost can be saved to achieve over the output of productivity.
- **Lower Operation Risk:** Phases of human intervention and rate of errors can be eliminated through RPA.
- **Improved Service Model:** Reduction of cycle times for better efficiency and increase in production can be eminently gained through RPA.
- **Retains Existing IT Systems:** RPA helps in leveraging the existing systems and software without any sort of replacements.
- **Automation of Monotonous Tasks:** RPA enables to automate routine and repetitive tasks to eliminate inefficiency by reducing human errors. This also helps the companies to increase business agility by cloning bots.
- **Lower Operation Costs:** RPA helps drastically to reduce operation costs and reduce various errors which helps the business to directly increase their Rate of Interest (ROI).

VARIOUS SECTORS THAT CAN BENEFIT THROUGH RPA

- Banking and Financial Services
- Telecommunications
- Manufacturing Sector
- Retailing

2. REVIEW OF LITERATURE

Kukreja and Nervaiya, 2016, According to the above mentioned authors, it was the ERP (Enterprise Resource Planning), in the early 90's, wave that computerized numerous horizontal processes across industry dimensions – Finance, Accounting, HR, etc. This was a journey that high businesses assumed and there are many more which are still continuing on this journey. RPA is the next wave in technology and it gives the assurance of an increased productivity, less errors & cycle time, and developed scalability.

Jensson and Fridgeirsson, 2018, This study conducted by Jensson and Fridgeirsson goals to contribute administrations insights into how positively RPA can be implemented and what are the factors to be aware of in order to avoid disappointment. Organizations should be able to comprehend RPA and so build a structure for RPA with suitable RPA team.

Petra Peura, 2018., This thesis attentions on RPA in Facility Organization. The purpose of this thesis was mainly to support the business in their project to increase the use of RPA implements in their customer schemes and to increase high market space in order to gain drastic change in sales structure and graph. The thesis provided the new perception delivered the concern with a new easy

adaptive perception and marketing strategy containing some materials for RPA use in Service Management. **Professor Lacity, 2016**, In the report submitted by Professor Lacity, it was canvassed how (RPA) is being deployed in shared facility organizations to attain the next conversion level which is beyond centralization, standardization, optimization, relocation to low cost areas, and use of enabling technologies.

3. STATEMENT OF PROBLEM

Despite of the research work and various attempts done by the scholars and researchers to emulate automation into the field of HR, the result is not accomplished. The present inquisition focuses on the appraisal of modernity by implementation of RPA in the field of HR at Micron EMS Tech. Pvt. Ltd. There are many factors which affects the implementation of RPA. Though the use of RPA technology will lay off jobs of many people and create unemployment, its effective and proper mechanism can be utilized in performing various jobs systematically. To solve issues related to HR, the automation technology should be efficiently applied especially to the areas where the humans are not capable of performing.

4. OBJECTIVES OF THE STUDY

- To understand what RPA is and different types of RPA present.
- To identify the capabilities of the organization by the implementation of RPA.

5. SCOPE OF THE STUDY

The study targets on the implementation of modernity by means of RPA in the organization. The researchers can further extend the study to focus on nearly all back and middle office process that are repetitive, monotonous, constant and regulation-based. The research has given a chance to other scholars to refer the ways and means, ideas and suggestions for the implementation of RPA for better success and to gain competitive edge.

6. RESEARCH METHODOLOGY

It is an **Experimental Research** since the study focuses on the need and requirement of RPA in Micron EMS. It is just an experiment to test the effectiveness of RPA. A literature review related to RPA to provide an inception to the topic as well as to look for conclusions drawn. The qualitative and quantitative analysis by the means of questionnaire.

DATA COLLECTION

The present study is based on the gathering of both primary and secondary information for an in penetration study. Primary data is being collected by circulation of structured questionnaires and the secondary data was gathered through various journals and online sources.

SAMPLE DESIGN

Sample size- 150 **Sample population-** The Sample chosen for this study is from the employees of Micron EMS. Tech. Pvt. Ltd. **Sampling technique-** The sampling technique used for this study is Possibility Sampling in which Random Sampling method is being used.

METHOD AND TOOLS FOR ANALYSIS OF DATA

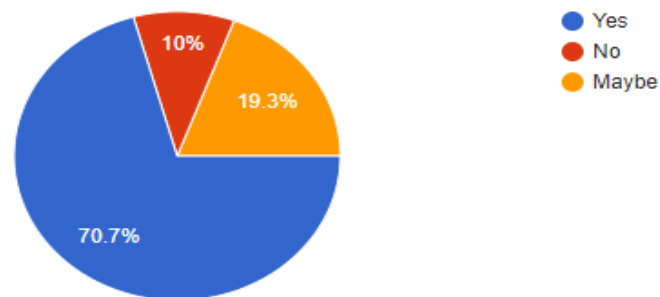
- Various Tables, Graphs and Charts shall be used to analyse the data.
- Various tools and techniques such as M.S. Excel will be used for the study.

7. LIMITATIONS TO THE STUDY

- The study focuses only on the micro level i.e., at Micron EMS Tech. Pvt. Ltd.
- The study covers the suggestions and ideas for implementation of RPA only from the employees of the organization.
- The study restricts only to one organization.

ANALYSIS AND INTERPRETATION**EMPLOYEE'S KNOWLEDGE ABOUT RPA**

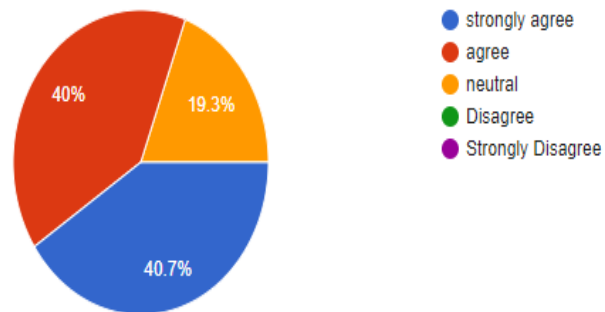
CRITERIA	TOTAL	PERCENTAGE
Yes	106	70.7%
No	15	19.3%
Maybe	29	10%
Total	150	100%

TABLE NO 1**DEPICTING IF THE EMPLOYEES OF THE ORGANIZATION POSSESS THE KNOWLEDGE ABOUT RPA****GRAPH NO 1**

INTERPRETATION 1: The above table and graph reveals the data about the employee's knowledge towards RPA (i.e., if they possess knowledge about RPA or not). Out of 150 responses, 106 defendants replied "yes", 15 defendants answered "no" and 29 respondents answered "maybe".

HOW MANY EMPLOYEES BELIEVE RPA IN BUSINESS ENTERPRISES ARE MOST EFFECTIVE COMPARED TO TRADITIONAL NON-RPA SOLUTIONS**SHOWING THE EFFECTIVENESS OF RPA IN BUSINESS ENTERPRISES**

CRITERIA	NO. OF EMPLOYEES	PERCENTAGE
Strongly Agree	61	40.7%
Agree	60	40%
Neutral	29	19.3%
Disagree	00	0%
Strongly Disagree	00	0%
Total	150	100%

TABLE NO. 2**DEPICTING THE EFFECTIVENESS OF RPA SOLUTIONS IN BUSINESS ENTERPRISES****GRAPH NO 2**

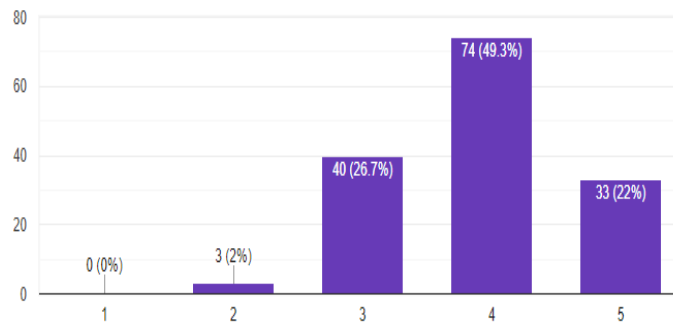
INTERPRETATION 2: The above table and graph depicts the employee's opinion regarding the effectiveness of RPA in business enterprises. Out of 150 respondents, 61 of them strongly agree that RPA in business enterprises are most effective, 60 respondents agree and 29 of them were neutral.

TO FIND OUT IF THE COMPANY IS CAPABLE TO IMPLEMENT RPA EFFECTIVELY BASED ON THE RATINGS GIVEN BY EMPLOYEES**SHOWING THE CAPABILITY OF THE COMPANY TO IMPLEMENT RPA EFFECTIVELY (1 Being the Lowest/Poor And 5 Being the Highest/Great)**

RATINGS	NO. OF EMPLOYEES	PERCENTAGE
1	0	0%
2	3	2%
3	40	26.7%
4	74	49.3%
5	33	22%
Total	150	100%

TABLE NO 3

DEPICTING THE RATINGS GIVEN BY THE EMPLOYEES REGARDING THE COMPANY'S CAPABILITY TO IMPLEMENT RPA EFFECTIVELY



GRAPH NO 3

INTERPRETATION 3: The above table and bar graph depicts the ratings by the employees about the company's capacity to implement RPA. About 49.3% of the respondents rated 4, which means the company has high capacity, about 26.7% rated 3, which means it has moderate/average capacity, about 22% rated 5, which means the company has highest capability and about only 2% of the respondents the company bears poor capacity to implement RPA effectively.

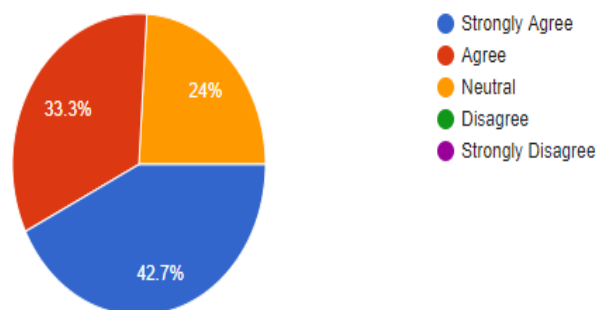
TO FIND OUT IF THE EMPLOYEES OF THE COMPANY REQUIRE TRAINING PROGRAMS TO ENHANCE THEIR SKILLS ABOUT RPA

SHOWING ANALYSIS OF THE REQUIREMENT OF TRAINING PROGRAMS TO EMPLOYEES

CRITERIA	NO. OF EMPLOYEES	PERCENTAGE
Strongly Agree	64	42.7%
Agree	50	33.3%
Neutral	36	24%
Disagree	00	0%
Strongly Disagree	00	0%
Total	150	100%

TABLE NO 4

DEPICTING THE NUMBER OF EMPLOYEES WHO AGREE THAT THEY REQUIRE TRAINING PROGRAMS



GRAPH NO 4

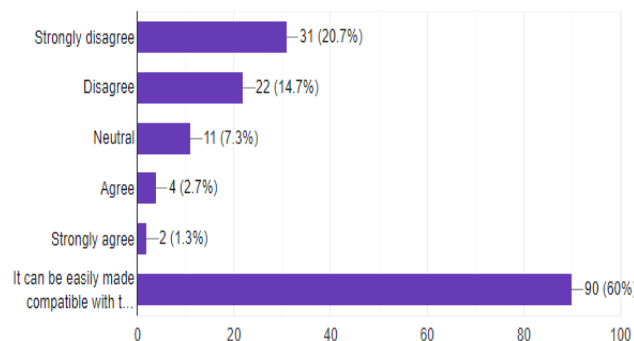
INTERPRETATION 4: The above table and graph reveals that almost 42.7% of the workers strongly approve that they require training programs to enhance their skills about RPA, about 33.3% agree and 24% were neutral and 0% disagree that they don't require any training about RPA.S

SHOWING THE NUMBER OF EMPLOYEES WHO AGREE AND DISAGREE TO THE CHANGE IN INFRASTRUCTURE WITH THE IMPLEMENTATION OF RPA

CRITERIA	NO. OF EMPLOYEES	PERCENTAGE
Strongly Agree	02	1.3%
Agree	04	2.7%
Neutral	11	7.3%
Disagree	18	14.7%
Strongly Disagree	25	20.7%
It Can Be Easily Made Compatible With The Existing Infrastructure.	80	60%
Total	150	100%

TABLE NO. 5

DEPICTING THE OPINION OF EMPLOYEES REGARDING THE CHANGE IN INFRASTRUCTURE WITH THE IMPLEMENTATION OF RPA

**GRAPH NO 5**

INTERPRETATION 5: The above data reveals the opinion of the employees whether they agree or disagree to the complete change in infrastructure with the implementation of RPA. Around 60% of the respondents believe that “it can be easily made compatible with the existing infrastructure” (which also means they strongly disagree to the infrastructure change), whereas only 4% of the respondents agree that change of infrastructure is required for implementing RPA.

7. FINDINGS

- The study portrayed that about 70.7% employees of the organization responded that they possess some knowledge about RPA and about 19.3% believe that they might have knowledge regarding RPA.
- Around 40.7% of the workforce strongly agree that RPA in business enterprises are most effective compared to non-RPA solutions.
- Around 49.3% agree that the company is capable of implementing RPA in HR department.
- The study also essayed that employees require training programs to enhance their knowledge about RPA.
- The study also revealed that the organization need not change its complete infrastructure and thus it can be easily made compatible with the existing infrastructure.
- The study also showcased that overall the company has the capacity to implement RPA in HRM and the effectiveness of it will be high in the long run.

8. SUGGESTIONS

- Training programs and workshops has to be conducted according to various sessions for enhancing and spreading knowledge about RPA to the company's employees.
- Modification of existing technology has to take place
- Hiring of new RPA operators would be helpful.
- Set up of LED screens and boards in all the cabins and departments to view the working progress. This will also ensure transparency in the working of the company.
- Hiring of more employees in HR department who already possess knowledge and skills about RPA.
- Internal training and change management should be adopted. Also team buy-in should take place on RPA implementation
- RPA could be an utmost secured approach it is uses cloud based approach.

9. CONCLUSION

The study successfully accomplished its objectives. Through research it has been found that, company has immense capabilities to implement RPA in HR department, but it lacks employee coordination and employee training for which the company has to necessarily undertake required measures to overcome the discrepancies. Even though RPA has few disadvantages, it can be overruled through its major advantages such as improved accuracy, improved employee morale, satisfaction, decreased cycle time and output etc. Overall it can be concluded that, through implementation of RPA in HR department of the company, will lead to employee satisfaction by the means of appraising modernity which induces the sense of secured feeling among employees and increase in accountability & transparency in working of the department.

10. REFERENCES

- [1] Kukerja and Nervaiya (2016), Study of Robotic Process Automation, Volume 4, issue 6, 434-437
- [2] Pall Jensson (2018), Robotic Process Automation: Dynamic Roadmap for Successful Implementation, School of Science and Engineering Reykjavík University <https://skemman.is/bitstream/1946/31385/1/MS%20Thesis%20-%20GudrunLiljaSigurdardottir.pdf>
- [3] Professor Mary Lacity (2016), Robotic Process Automation: The Next Transformation Lever for Shared Services, paper 16/01 <http://www.umsl.edu/~lacitym/OUWP1601.pdf>
- [4] <https://en.wikipedia.org/wiki/Modernism>
- [5] https://www.google.co.in/search?q=meaning+of+rpa&rlz=1C1CHZL_enIN799IN799&oq=MEANING+OF+rpa&aqs=chrome.0.0l5.3639j0j7&sourceid=chrome&ie=UTF-8