PROJECT REPORT

ON

A STUDY ON AUTOMATION OF PROJECT MANAGEMENT PROCESSES IN GENERIC PHARMACEUTICAL R&D

Submitted in partial fulfilment of requirements for

the award of the Post Graduate Diploma in Management (PGDM)

SUBMITTED BY:

NAME

PGDM

Registration no.: -

NMIMS GLOBAL ACCESS SCHOOL FOR CONTINUING EDUCATION

<u>Declaration</u>

I, XXXXXXXXXXXXX certify that the project report entitled **"A Study on Automation of Project Management Processes in Generic Pharmaceutical R&D"** "is an original one and has not been submitted earlier to NMIMS or to any other institution for fulfilment of the requirement of a course of management programme (MBA)

Name: XXXXXXXXXX

Enrollment No.: XXXXXXXXXX

<u>ACKNOWLEDGEMENT</u>

 I would want to take this opportunity to thank my business mentor, "Mr. ………," and to convey my sincere thanks. I am really grateful to him for his invaluable advise, helpful recommendations, positive and encouraging attitude, and encouragement during the whole study. Without these things, I could not have finished the assignment.

In the future, I intend to contribute significantly to this business by building on the expertise and information I have already acquired.

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EXECUTIVE SUMMARY / ABSTRACT

 The pharmaceutical sector has several obstacles when it comes to successfully and efficiently managing projects, especially in the area of research and development (R&D). Project management is moving toward automation as a result of the need for efficient procedures to speed up drug development while maintaining strict quality requirements. Within the framework of generic pharmaceutical research and development, this study examines the use of automation in project management procedures.

This study's main goal is to investigate the viability, advantages, and difficulties of automating project management procedures in the R&D industry for generic pharmaceuticals. Organizations seek to maximize resource allocation, increase collaboration, and enhance decision-making across the project lifecycle by using technology innovations like artificial intelligence, machine learning, and data analytics.

The main conclusions show that automation has a great deal of promise to improve project results overall, decrease human involvement, and simplify project management tasks. Increased productivity, enhanced precision, and better use of resources result in cost savings and a quicker time to market for generic pharmaceutical goods.

However, there are drawbacks to automating project management procedures, such as organizational resistance to change, integration difficulties, and data security issues. To guarantee a seamless transition and optimize the advantages of automation, successful implementation requires a strategic strategy, strong governance frameworks, and investments in training and change management programs.

The generic pharmaceutical R&D industry has a revolutionary potential to reduce operational inefficiencies and spur creativity via the automation of project management procedures. Organizations may set themselves up for long-term success and a competitive edge in a market that is becoming more demanding and dynamic by embracing technology breakthroughs and tackling related issues.

CHAPTER 1: INTRODUCTION

1.1 Research Background

The pharmaceutical sector works in a highly regulated and competitive environment, especially when it comes to research and development (R&D). Getting goods to market successfully and economically while meeting strict regulatory standards presents special problems for generic pharmaceutical businesses in particular.

Pharmaceutical R&D project management has historically mostly depended on manual procedures, which has resulted in inefficiencies, delays, and a higher chance of mistakes. Innovative solutions are desperately needed to boost overall productivity and expedite project management procedures due to the increasing complexity of drug development projects.

One possible approach to overcoming these obstacles is automation. Pharmaceutical firms may automate planning, scheduling, resource allocation, and risk management, among other project management tasks, by using technological innovations like artificial intelligence (AI), machine learning, and data analytics.

The aim to improve operational efficiency and agility has led to a noticeable growth in the use of automation tools and platforms across several sectors in recent years. However, there are particular issues and complications when using automation in the context of generic pharmaceutical research and development.

1.2 Research Problem

In generic pharmaceutical research and development (R&D), automating project management procedures offers a potential chance to boost productivity and creativity. However, a number of important obstacles and knowledge gaps prevent its efficient application and use in this situation.

Navigating the complicated regulatory environment that oversees pharmaceutical R&D and making sure automated project management solutions meet strict data integrity and validation standards are two of these issues' most important components. Furthermore, research and development initiatives for generic pharmaceuticals often include cooperation between several stakeholders, which calls for smooth communication and the integration of automated systems across various functional domains.

CHAPTER 2: INDUSTRY PROFILE

India is the world's largest supplier of generic pharmaceuticals and is well-known for its reasonably priced vaccinations and generic treatments. With a compound annual growth rate (CAGR) of 9.43% over the last nine years, the pharmaceutical industry—which ranks third in the world in terms of manufacturing volume—has flourished into a flourishing sector. This dynamic sector is made up of many divisions, including biologics, contract research & production, vaccines, generic medicines, over-the-counter meds, bulk drugs, and biosimilars. With around 500 active pharmaceutical ingredient (API) companies, or about 8% of the worldwide API industry, India notably has the most pharmaceutical production facilities that are in compliance with the US Food and Drug Administration (USFDA).

Market Size

According to projections, the pharmaceutical sector in India is expected to develop significantly, reaching an estimated US$65 billion by 2024 and US$130 billion by 2030. According to government figures, the Indian pharmaceutical industry is now valued at over US$50 billion, of which over US$25 billion comes from exports. Notably, India positions itself as a major participant in the global pharmaceutical sector by meeting almost 20% of the demand for generic medications worldwide.

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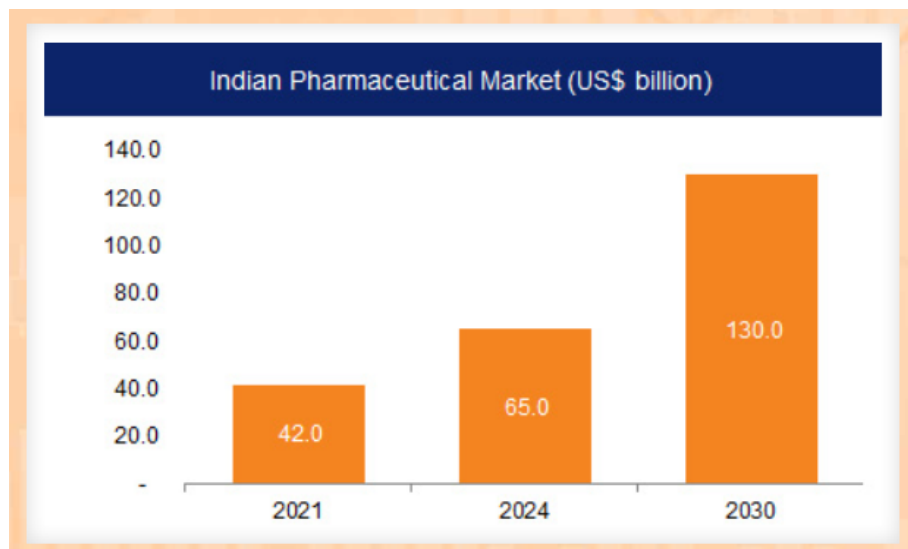
In addition to its expertise in generic medications, India ranks third in Asia Pacific and is regarded as one of the world's leading biotechnology locations. India's biotechnology business grew rapidly, reaching US$ 80.12 billion in 2022—a significant 14% gain from the year before. The Indian pharmaceutical business grew at a compound annual growth rate (CAGR) of 6-8% during the last five fiscal years (FY18 to FY23), mostly due to a 6% increase in the local market and an 8% increase in exports.

According to Pharmexcil statistics, India's exports of medications and pharmaceuticals were Rs. 2,08,231 crore (US$ 25.3 billion) in Fiscal Year 2023. Drug and pharmaceutical exports grew at a favorable rate of 8.14% between April and October of 2023. According to estimates, this sector's exports in October 2023 were US$ 2.42 billion, or 7.21% of all exports for the month.

India is now the world's 12th-largest supplier of medical supplies. The United States is a major market for its pharmaceutical goods, which are distributed in more than 200 countries. With generic medications making up 20% of global exports by volume, India is the world's biggest supplier of generic medications. Notably, Indian pharmaceutical and medicine exports reached US$ 2.19 billion in September 2022, up from US$ 24.60 billion in FY22 and US$ 24.44 billion in FY21.

CHAPTER 3: REVIEW OF LITERATURE

Brief overview of the generic pharmaceutical

When brand-name drugs' patents expire, the generic pharmaceutical sector plays a vital role in supplying affordable substitutes, making it a pillar of contemporary healthcare systems across the globe. These generic medications guarantee therapeutic equivalency and are often offered at much reduced costs since they are designed to have the same active components, dosage forms, strengths, and indications as their branded equivalents. Enhancing patient access to necessary pharmaceuticals is the industry's main goal, particularly in areas where healthcare budgets are limited or people encounter financial obstacles when trying to acquire branded prescriptions. The generic pharmaceutical sector is essential in lowering healthcare costs for individuals, insurers, and healthcare providers by providing more reasonably priced alternatives. This enhances the affordability and accessibility of healthcare in general.

Project management's significance in pharmaceutical R&D

Pharmaceutical research and development (R&D) relies heavily on project management, which is essential to the timely and effective release of novel medications into the market. It is impossible to overestimate the significance of efficient project management in this intricate and strictly regulated sector, which includes everything from preclinical research and medication development to clinical trials, regulatory approval, and commercialization. In addition to improving resource allocation, minimizing risks, and increasing the likelihood of project success, this all-encompassing approach to project management is crucial for navigating the many obstacles and unknowns present in the drug development process.

Outlining the present status of project management process automation research

The complex procedures and varied nature of pharmaceutical research and development (R&D) make project management crucial to the introduction of novel medications and therapies to the market. Because of the complexity, high stakes, and lengthy development schedules of R&D projects in the pharmaceutical business, successful project management is crucial. Several important considerations highlight the significance of project management in pharmaceutical R&D.

Above all, project management guarantees the effective use of resources, such as money, time, and staff, throughout the medication development process. Interdisciplinary teams made up of scientists, researchers, doctors, regulatory specialists, and other stakeholders are often involved in pharmaceutical R&D initiatives. These different teams may collaborate and coordinate more easily when effective project management is in place, and everyone is in agreement with the project's objectives, schedule, and deliverables. Project management speeds up the drug development process by maximizing productivity, cutting expenses, and minimizing waste via the efficient allocation and use of resources.

What Automation Means in Project Management

The use of technology, tools, and procedures to automate, optimize, and simplify different facets of project planning, execution, monitoring, and reporting is known as automation in project management. Fundamentally, automation seeks to increase project management processes' efficiency and consistency while lowering human labor and getting rid of repetitive work. Project managers may improve efficiency, reduce mistakes, and concentrate on higher-value tasks by using automation, which will eventually lead to improved project results and organizational success.

Important Project Management Concepts and Models

For projects in organizations to be planned, carried out, and completed successfully, a broad range of ideas and models are included in project management. In order to ensure successful results and provide value to stakeholders, these fundamental ideas and models act as frameworks and processes that lead teams and project managers through the many phases of the project lifecycle. It is essential for professionals and aspiring project managers who want to succeed in the area of project management to comprehend these ideas and models.

Conventional approaches to project management

The organized, sequential methods used to design, carry out, and oversee projects within businesses are referred to as traditional project management processes. The linear and sequential nature of these approaches, together with their discrete stages and well defined procedures for project start, planning, execution, monitoring and controlling, and closing, identify them. Because they provide an organized framework for managing projects and providing value to stakeholders, traditional project management approaches have been extensively employed for decades across a variety of sectors and areas. We will examine the

fundamental ideas, procedures, and techniques that characterize conventional project management in this thorough investigation.

The Waterfall model is one of the most well-known conventional project management techniques. With discrete stages that cascade from one to the next, the Waterfall model takes a methodical, linear approach to project management. Gathering requirements, designing, implementing, testing, deploying, and maintaining are usually included in these stages. Before the next phase can start, each one must be finished, and once a phase is finished, it is usually discouraged to make modifications to the requirements or deliverables. Projects like manufacturing processes or building projects, which have well defined criteria and outputs, are especially well-suited for the Waterfall approach.

The Critical Path Method (CPM), another conventional project management technique, is used to plan and examine the order of tasks and dependencies in a project. The critical path—the longest chain of interdependent activities that establishes the project's total duration—is identified by CPM. Project managers can effectively allocate resources, prioritize tasks, and spot chances for schedule acceleration or compression by determining the key route. Large-scale engineering projects or building projects with intricate dependencies and strict deadlines benefit greatly from CPM.

Similar to this, another conventional project management approach for planning and evaluating project activities is the Program Evaluation and Review Technique (PERT). PERT determines possible risks and uncertainties as well as the project's anticipated duration using probabilistic calculations. PERT enables project managers to make better choices on scheduling and resource allocation by integrating probabilistic estimates, which help them account for uncertainty and variability in project schedules. PERT is very helpful for projects that have a lot of uncertainty and variable, like R&D projects or creative product development campaigns.

Methods of agile project management

Agile project management techniques emphasize adaptability, teamwork, and iterative development, which sets them apart from conventional, linear methods. Agile approaches

divide projects into smaller, more manageable units called iterations or sprints in an effort to provide value to clients rapidly and consistently. Throughout the project lifetime, these iterations enable project teams to collect stakeholder input, adjust their plans, and adjust to evolving needs. We will examine the fundamental ideas, procedures, and techniques that characterize Agile project management methods in this thorough investigation.

The Agile Manifesto, which lists twelve guiding principles and four fundamental values, is the foundation of Agile project management. The Agile Manifesto's four guiding principles are:

1.People and their interactions with procedures and equipment

2.Functional software as opposed to thorough documentation

3.Customer cooperation during contract negotiations

4.Adapting to change rather than sticking to a plan

These principles stress the significance of people, teamwork, and flexibility in Agile project management, emphasizing the need of putting the needs of the client first and producing results fast and consistently.

Scrum, one of the most popular Agile approaches, is founded on the ideas of openness, scrutiny, and flexibility. Scrum breaks down projects into sprints, which are brief, fixed-length iterations that usually span two to four weeks. Cross-functional teams collaborate to produce a potentially shippable product increment at the end of each sprint. Along with particular rituals like sprint planning, daily stand-ups, sprint reviews, and sprint retrospectives, the Scrum framework includes important roles like the Product Owner, Scrum Master, and Development Team. Organizations may cultivate a culture of cooperation, openness, and continuous development by adopting the Scrum framework, which will eventually result in higher-quality goods and services for clients.

Kanban is another well-liked Agile technique that emphasizes flow optimization, work in progress (WIP) limitation, and workflow visualization. Kanban visualizes the flow of work through many phases, including backlog, analysis, development, testing, and deployment, using a visual board called a Kanban board. Kanban boards are used by teams to monitor task progress, spot bottlenecks, and rank work according to project priorities and client demands.

Kanban helps teams find and fix problems fast, increase productivity, and produce value more consistently by reducing work-in-progress and streamlining workflow.

Automation's Contribution to Increasing Project Management Effectiveness

It is impossible to overestimate how important automation is to improving project management effectiveness in the hectic and complicated corporate world of today. Automation is the process of streamlining and optimizing many facets of project management, such as planning, execution, monitoring, and reporting, via the use of technology, tools, and procedures. Project managers may increase output, decrease manual labor, eliminate mistakes, and expedite project delivery by using automation. This will eventually result in better results and provide value to stakeholders. We will examine the main advantages, difficulties, and factors related to automation in project management in this thorough investigation, along with the most effective methods for adoption and deployment.

Increased productivity and efficiency are two of the main advantages of automation in project management. Project managers may free up time and resources for more strategic endeavors by automating repetitive processes like monitoring project progress, updating status reports, and organizing meetings. By automating repetitive tasks, project managers can focus on higher-value activities, such as strategic planning, stakeholder engagement, and risk management, ultimately improving project outcomes and driving organizational success.

Advantages of automation in project management processes

Automation in project management processes offers a plethora of advantages that can significantly enhance efficiency, productivity, and overall project success. By leveraging technology, tools, and automated workflows, organizations can streamline various aspects of project management, reduce manual effort, minimize errors, and accelerate project delivery. In this comprehensive exploration, we will delve into the key advantages of automation in project management processes and how they contribute to better project outcomes and stakeholder satisfaction.

One of the primary advantages of automation in project management processes is improved efficiency and productivity. Automation allows organizations to automate routine, repetitive tasks such as scheduling meetings, updating status reports, and tracking project progress, freeing up valuable time and resources for more strategic activities. By reducing manual effort and automating time-consuming tasks, project managers can focus on higher-value

activities such as strategic planning, stakeholder engagement, and risk management, ultimately driving better project outcomes and organizational success.

Moreover, automation in project management processes helps minimize errors and improve accuracy. Manual tasks are prone to human error, inconsistencies, and delays, which can impact project timelines, budgets, and quality. By automating manual tasks such as data entry, document generation, and approval workflows, organizations can improve accuracy, consistency, and reliability, ultimately reducing the risk of errors and improving project outcomes.

Furthermore, automation enables better decision-making and resource allocation in project management. By leveraging data analytics and artificial intelligence (AI), organizations can analyze vast amounts of project data, identify trends and patterns, and make data-driven decisions about resource allocation, risk management, and project prioritization. For example, AI algorithms can help predict project delays, identify potential risks, and optimize resource allocation to ensure projects are delivered on time and within budget.

In addition, automation in project management processes enhances collaboration and communication among project team members and stakeholders. Collaboration tools such as project management software platforms and communication channels enable real-time collaboration, document sharing, and feedback exchange, regardless of team members' locations or time zones. By facilitating collaboration and communication, automation helps improve team productivity, alignment, and engagement, ultimately driving better project outcomes and stakeholder satisfaction.

Challenges and limitations of automation implementation

Implementing automation in project management processes offers numerous benefits, but it also presents a set of challenges and limitations that organizations must address to maximize its effectiveness and success. From technological complexities to organizational resistance, navigating these challenges requires careful planning, collaboration, and strategic decision-making. In this comprehensive exploration, we will delve into the key challenges and limitations of automation implementation in project management processes and explore strategies for overcoming them.

One of the primary challenges of automation implementation is technological complexity and integration. Organizations often rely on a myriad of disparate systems, tools, and platforms

for project management, each with its own set of functionalities, data formats, and integration requirements. Integrating these systems and automating workflows across them can be complex and time-consuming, requiring specialized expertise and resources. Additionally, organizations must ensure compatibility and interoperability between different systems and platforms to avoid data silos, duplication of efforts, and compatibility issues.

Automation in regulatory compliance and documentation

Automation has revolutionized regulatory compliance and documentation processes across various industries, including pharmaceuticals, healthcare, finance, and manufacturing. By leveraging technology and automated workflows, organizations can streamline compliance activities, ensure data integrity, and mitigate risks associated with non-compliance. In this comprehensive exploration, we will delve into the key aspects of automation in regulatory compliance and documentation, highlighting its impact on efficiency, accuracy, and overall compliance posture.

One of the primary areas where automation has transformed regulatory compliance is in document management and control. Automated document management systems (DMS) enable organizations to create, revise, review, approve, and archive regulatory documents more efficiently and securely. By replacing manual, paper-based processes with electronic workflows, organizations can streamline document lifecycle management, reduce errors, and ensure compliance with regulatory requirements such as version control, audit trails, and document retention policies. Automated document control features, such as access controls, electronic signatures, and encryption, help organizations maintain data integrity, confidentiality, and authenticity, ensuring that documents are protected from unauthorized access, modification, or tampering.

CHAPTER 4: OBJECTIVES OF THE STUDY

1. Evaluate the feasibility of automating project management workflows in generic pharmaceutical R&D to improve efficiency.

2. Assess the efficacy of automation tools in improving project efficiency and decreasing the time-to-market in generic pharmaceutical research and development.

3. Evaluate the influence of automation on the quality of projects and the utilization of resources in the context of generic pharmaceutical research and development.

4. Investigate the potential of automation technologies to enhance the planning, execution, and monitoring of generic pharmaceutical research and development projects.

CHAPTER 5: RESEARCH METHODOLOGY

Research Design

The descriptive research design is adopted in this study. The main goal of using the descriptive style of research design is to ensure that the data gathered is concise and well-structured, making analysis easy and straightforward.

Primary Data

It was collected through questionnaire survey

Research Instrument

An instrument used to measure the variables, characteristics, or information of interest—often a behavioral or psychological characteristic—is a survey, questionnaire, test, scan, rating, or tool. Your research project may benefit from the use of research instruments.

Target audience were workers engaged in software development operations.

Sample size is 50.

Area of Study: India

Secondary Data

It was gathered from books, magazines, newspapers, websites, and articles.

CHAPTER 6: DATA ANALYSIS AND FINDINGS

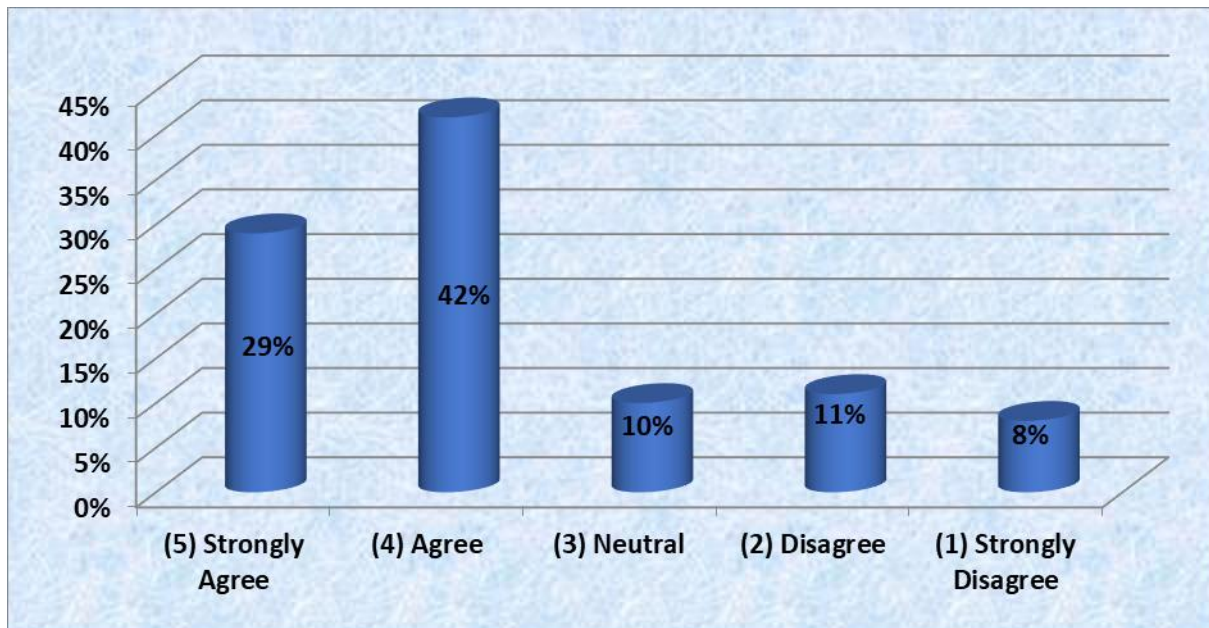**Q1. In generic pharmaceutical R&D, automation greatly improves project planning efficiency.**
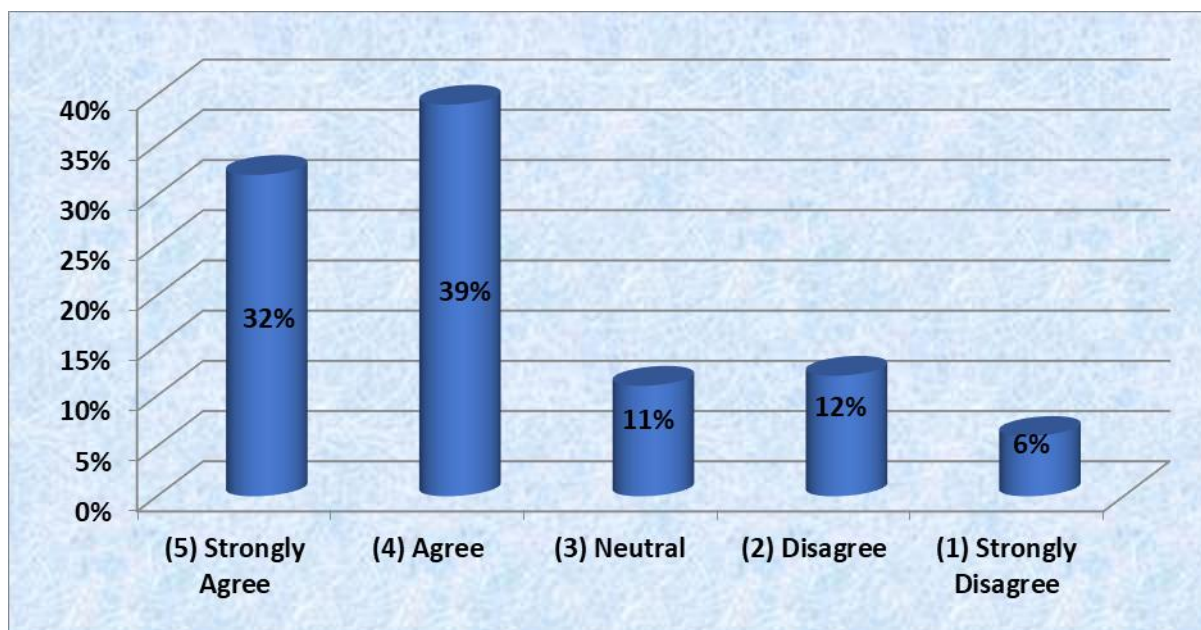
While 12% of respondents disagreed that automation significantly improves project planning efficiency in generic pharmaceutical R&D, 32% of respondents strongly agreed with this statement.

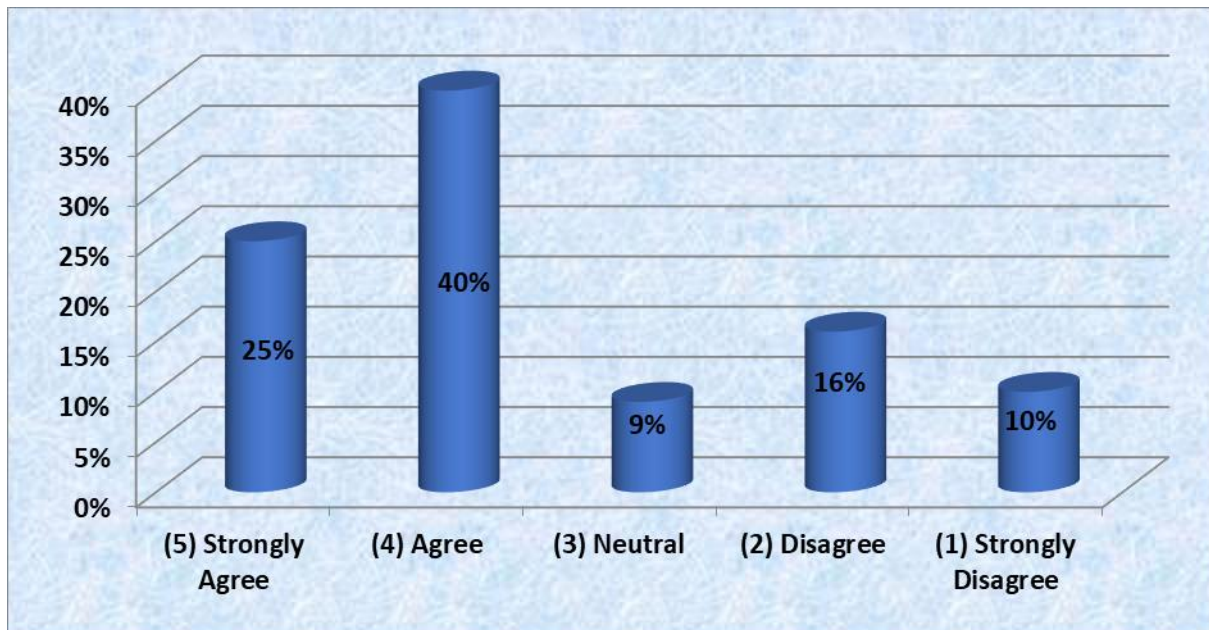**Q2. In generic pharmaceutical R&D, automation efficiently reduces human error in project management procedures.**
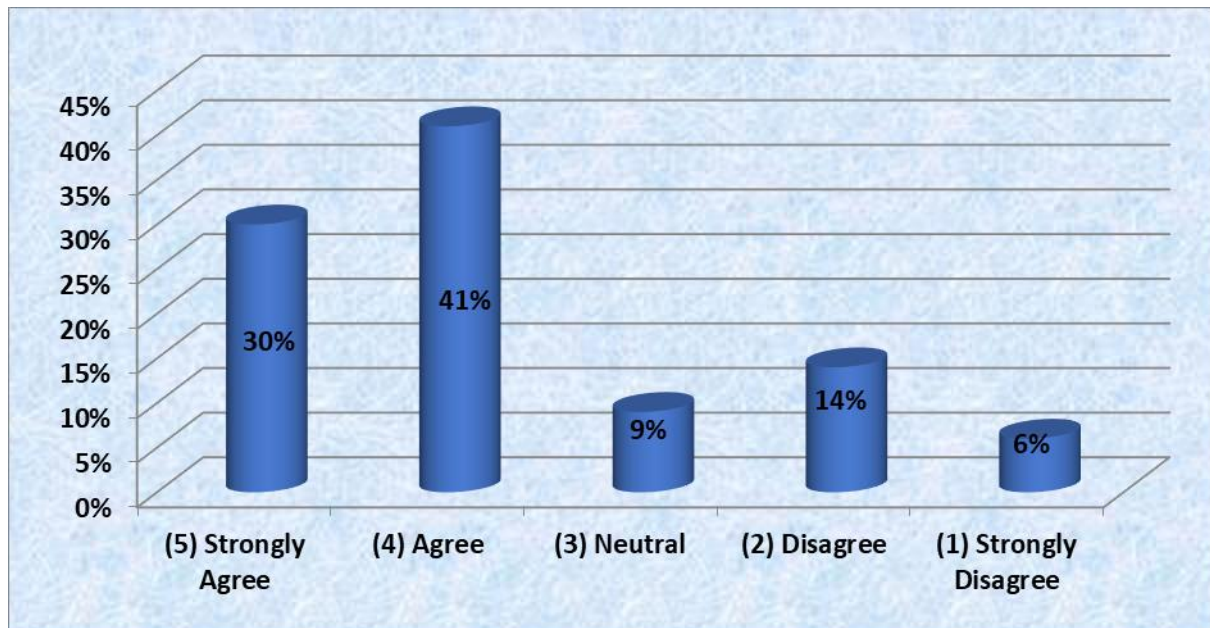
In generic pharmaceutical R&D, 30% of respondents strongly agreed that automation significantly reduces human mistakes in project management operations. But according to 14% of respondents, automation successfully reduces human error in project management procedures in generic pharmaceutical R&D.

Q3. In R&D initiatives involving generic pharmaceuticals, automation makes the best use of available resources.
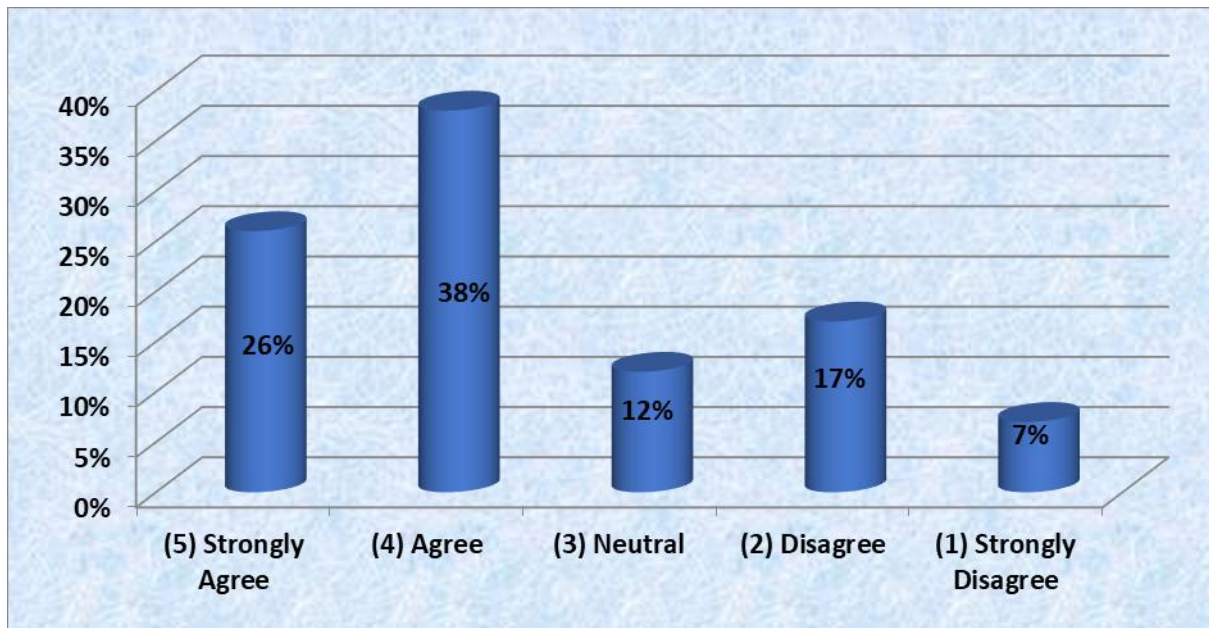

While 11% of respondents disagreed with the statement that automation properly allocates and uses resources in generic pharmaceutical R&D projects, 29% of respondents strongly agreed with it.

Q4. Project execution in generic pharmaceutical R&D is significantly accelerated by automation.

Of those surveyed, 16% disagreed with the aforementioned statement, while 25% strongly agreed with it.
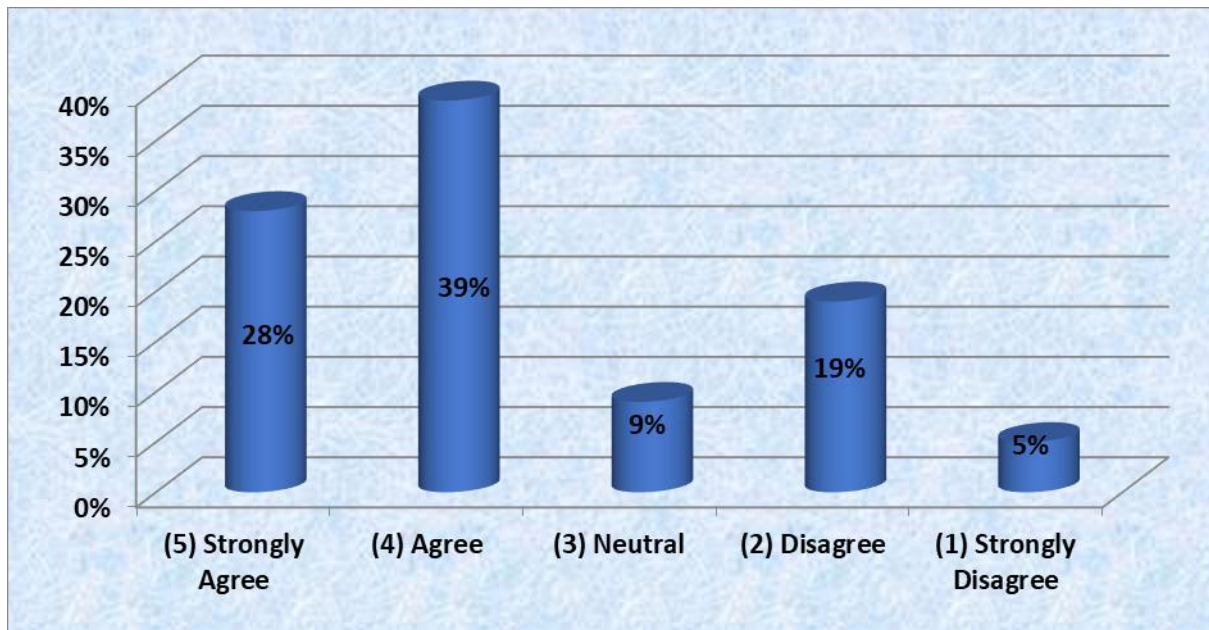
Q5. Project tracking and monitoring in generic pharmaceutical R&D are smoothly integrated with automation.

While 17% of respondents disagreed with the aforementioned statement, 26% of respondents strongly agreed with it.
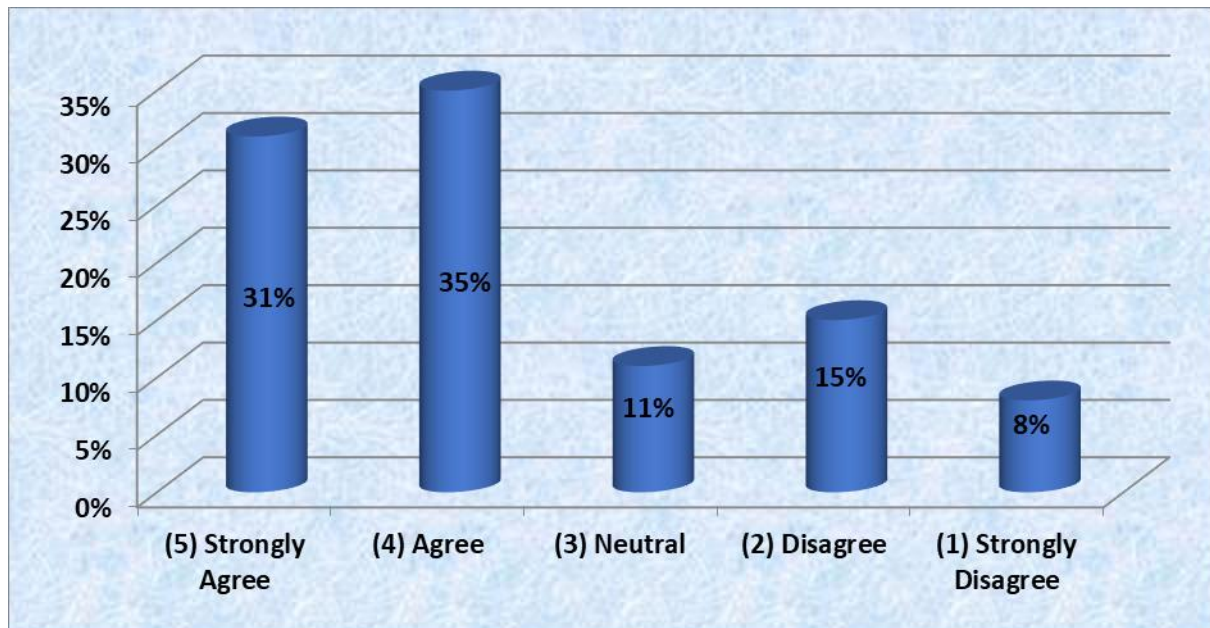
Q6. In R&D initiatives involving generic pharmaceuticals, automation significantly aids in risk management.

While 19% of respondents disagreed with the aforementioned statement, 28% of respondents strongly agreed with it.
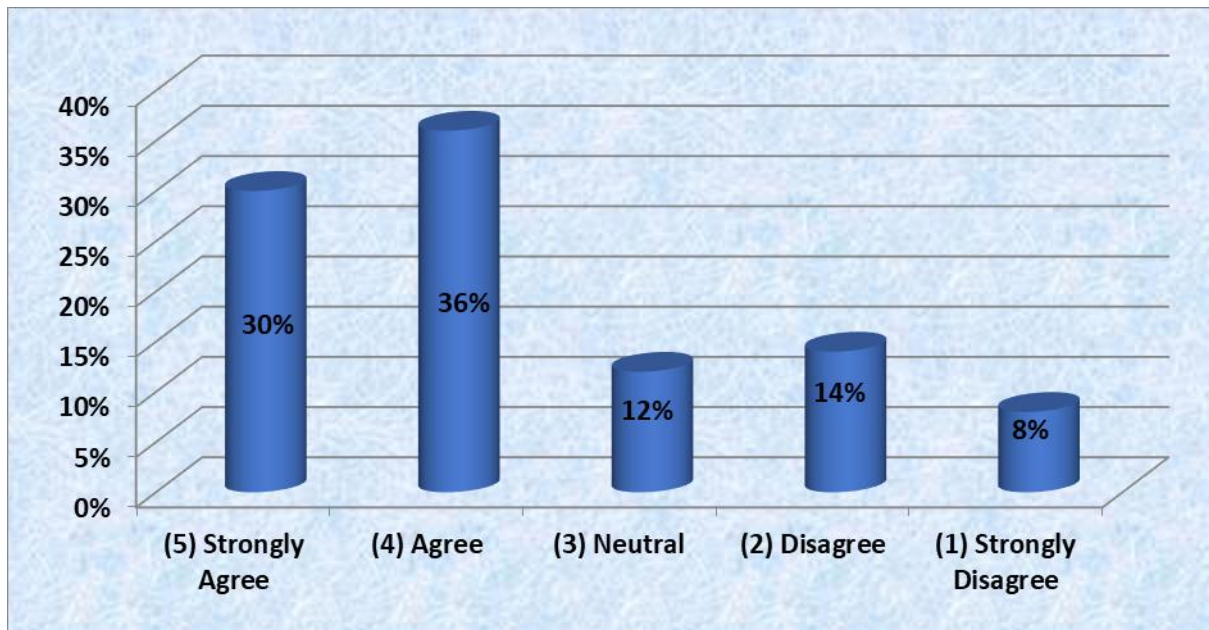
Q7. In generic pharmaceutical R&D, automation makes it easier for project stakeholders to collaborate and communicate effectively.

While 15% of respondents disagreed with the aforementioned statement, 31% of respondents strongly agreed with it.
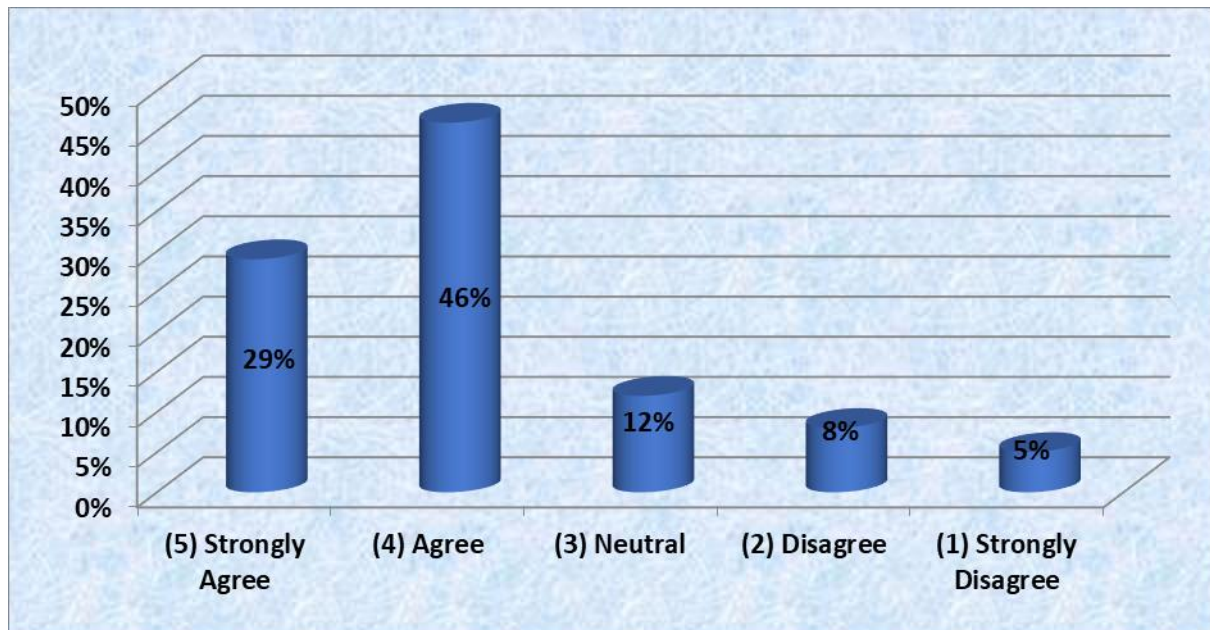
Q8. In generic pharmaceutical R&D, automation continuously enhances project results and deliveries.
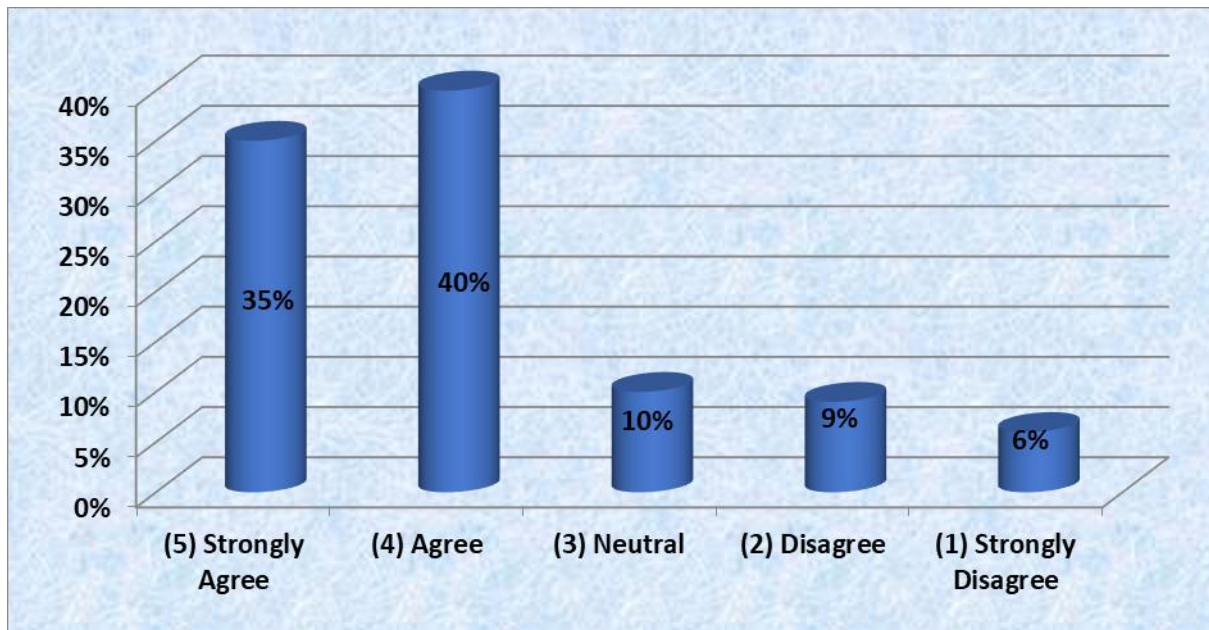

14% of respondents disagreed with the aforementioned statement, however 30% of respondents strongly agreed with it.

Q9. In R&D programs for generic pharmaceuticals, automation guarantees adherence to regulatory criteria.

Eight percent of respondents disagreed with the aforementioned statement, while 29 percent strongly agreed with it.

Q10. In the R&D of generic pharmaceuticals, automation performs very well in project management procedures.

Nine percent of respondents disagreed with the aforementioned statement, while 35 percent strongly agreed with it.

CHAPTER 7: CONCLUSION AND SUGGESTIONS

7.1 Conclusion

In summary, there is a great chance to improve productivity, efficiency, and project results by integrating automation into project management procedures in the field of generic pharmaceutical research and development. It is clear from our investigation that automation technology may simplify a number of project planning, execution, monitoring, and communication processes. Automation may help ensure that high-quality pharmaceutical products are developed and delivered on time by lowering human mistakes, optimizing resource use, and speeding up project timeframes.

Additionally, automation is essential for guaranteeing adherence to legal mandates and reducing project management risks in the pharmaceutical sector. Throughout the project lifetime, automation solutions provide invaluable assistance in preserving data integrity, traceability, and audit readiness due to the intricacy of regulatory requirements and the need for thorough documentation.

Additionally, automation encourages cooperation and openness among project participants, facilitating smooth communication and goal alignment. Automation enables flexible reactions to shifting project dynamics and strengthens decision-making processes by giving real-time access to project data, analytics, and insights.

Although there are clear advantages to automation in generic pharmaceutical R&D project management, it is important to recognize the difficulties and constraints involved in putting it into practice. These might include the price of the original investment, the difficulties of integration, and the need for continuous support and training. These obstacles may be successfully overcome, however, with meticulous preparation, stakeholder involvement, and ongoing development, opening the door for fruitful automation projects.

Automation of project management procedures has enormous potential to boost competitiveness, efficiency, and innovation in the generic drug sector. Organizations may more successfully negotiate the challenges of drug development by adopting automation technologies and using their potential, which will eventually improve healthcare and society as a whole.

7.2 Suggestions

1. Perform a complete assessment: Prior to automating, carry out an exhaustive evaluation of the project management procedures that are already in place, determining which areas stand to gain the most from automation technology.

2. Make an investment in reliable automation tools: Select automation technologies with capabilities like data integration, compliance management, and customisable processes that are especially made for the intricacies of pharmaceutical R&D projects.

3. Tailor automation systems: Adapt automation solutions to the particular demands and specifications of R&D projects for generic pharmaceuticals, making sure they complement project complexity, organizational objectives, and regulatory standards.

4. Offer sufficient training and assistance: Give project team members thorough instruction on the proper usage of automation tools. Furthermore, provide continuing assistance to resolve any problems or difficulties that may arise throughout use and deployment.

5. Encourage cooperation and communication: Make use of automation technologies to help project stakeholders collaborate and communicate with one another, keeping everyone informed, on the same page, and involved throughout the project's duration.

6. Ensure data security and compliance: To safeguard sensitive data and guarantee compliance with legal mandates like HIPAA, GDPR, and FDA rules, put in place strong data security measures and compliance controls.

7. Track and evaluate performance: Keep an eye on how well automation tools and procedures are working, including information on key performance indicators (KPIs) such project schedules, resource use, and cost reductions. Utilize this information to pinpoint areas in need of optimization and development.

8. Promote innovation and adaptation: Encourage team members to investigate new automation technologies and modify procedures in response to shifting project needs and market trends by cultivating an innovative and continuous improvement culture inside the company.

9. Assess return on investment (ROI): Evaluate automation programs on a regular basis, quantifying the advantages in terms of better project results, cost savings, productivity

improvements, and time saved. Make use of this data to support more automation initiatives.

10. Remain knowledgeable and flexible: Keep up with the most recent advancements in automation technology and R&D trends for generic pharmaceuticals. Continue to be flexible and nimble, prepared to adopt new automation techniques and solutions that may improve project management procedures even more and spur creativity.

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ANNEXURE-QUESTIONNAIRE

Q1.Automation significantly enhances the efficiency of project planning in generic pharmaceutical R&D.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q2.Automation effectively minimizes manual errors in project management processes within generic pharmaceutical R&D.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q3.Automation optimally allocates and utilizes resources in generic pharmaceutical R&D projects.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q4.Automation substantially accelerates the pace of project execution in generic pharmaceutical R&D.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q5.Automation seamlessly integrates into project monitoring and tracking in generic pharmaceutical R&D.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q6.Automation greatly contributes to risk management in generic pharmaceutical R&D projects.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q7.Automation facilitates effective communication and collaboration among project stakeholders in generic pharmaceutical R&D.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q8.Automation consistently improves project outcomes and deliverables in generic pharmaceutical R&D.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q9.Automation ensures compliance with regulatory requirements in generic pharmaceutical R&D projects.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree

Q10.Automation demonstrates exceptional performance in project management processes within generic pharmaceutical R&D.

5.Strongly Agree

4.Agree

3.Neutral

2.Disagree

1.Strongly Disagree