

IMPROVING VENDOR SELECTION IN PHARMA USING DIGITAL PLATFORMS

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by

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Under the Supervision and Guidance of

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Sumit Patel** student of **IIHMR University, Jaipur** has successfully completed his **Dissertation & Internship** in **EviaSearch**. from 10th March 2025 to 10th Jun 2025. He has worked on the project

Topic: Improving Vendor Selection in Pharma Using Digital Platforms

We found him sincere and hardworking

We extend him good wishes for a bright and successful career ahead.

Director, EviaSearch Tech Pvt. Ltd.

Best regards,



Rajendra Talele

CERTIFICATE

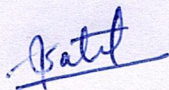
This is to certify that dissertation titled **Improving Vendor Selection In Pharma Using Digital Platforms** is a record of the research work undertaken by **Sumit Patel** in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur under my guidance and supervision and his approach to the research study has been sincere, scientific, and analytical.


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DECLARATION BY STUDENT

I hereby declare that this dissertation titled **IMPROVING VENDOR SELECTION IN PHARMA USING DIGITAL PLATFORMS** is the Bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



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SUMIT PATEL

Date: 20/06/2025

ABSTRACT

- ❖ **TITLE:** Improving Vendor Selection in Pharma Using Digital Platforms
- ❖ **AUTHOR NAME:** Sumit patel
- ❖ **ADVISOR NAME:** Mr. Rajendra Talele
- ❖ **KEYWORDS:** Vendor Selection, Pharmaceutical Procurement, Digital Platforms, E-Sourcing, Supplier Management, Compliance, Supply Chain
- ❖ **BACKGROUND:** In the pharmaceutical sector, choosing the right vendor is crucial to operational effectiveness and regulatory compliance. Pharmaceutical firms are under increasing pressure to guarantee quality, cost-effectiveness, and traceability; therefore, manual vendor selection procedures have become ineffective. The emergence of digital platforms that provide benchmarking, automation, and data-driven insights is revolutionizing the way pharmaceutical businesses find, evaluate, and interact with their suppliers.
- ❖ **OBJECTIVE:** This study explores the ways in which digital technologies, including blockchain, artificial intelligence, and e-procurement tools, improve vendor selection during the pharmaceutical procurement process. The objective is to determine which digital tactics increase vendor assessment, regulatory compliance, and procurement performance the most.
- ❖ **METHODOLOGY:** Qualitative interviews and secondary research were combined with quantitative data from surveys of pharmaceutical procurement experts as part of a mixed-method study methodology. Case studies, regulatory databases, and industry reports were among the sources used. Measures of procurement success, including cost savings, turnaround time, and quality compliance, were interpreted using analytical tools like Excel and SPSS.
- ❖ **RESULTS/FINDINGS:** Real-time data access, greater supplier performance tracking, and a reduction in manual labor have all made vendor selection much more efficient thanks to digital platforms. Businesses who combined cloud-based procurement solutions with AI-powered evaluation tools claimed increased cost reductions, faster response times, and

better compliance tracking. Initial investment expenses and a lack of digital skills in the workforce were major obstacles.

- ❖ **CONCLUSIONS:** Pharmaceutical vendor selection procedures are being modernized in large part because to digital platforms. In addition to improving vendor assessments' speed and accuracy, they also help with long-term supplier management and regulatory compliance. In a climate that is highly regulated and competitive, pharmaceutical businesses that invest in digital procurement systems, e-sourcing technologies, and strategic vendor management are better positioned to achieve operational efficiency and sustainable compliance.

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As I Am Approaching Completion of My Project Report, I Would Like to Take This Opportunity to Acknowledge the Invaluable Contributions to My Study, I Am Grateful While Expressing My Gratitude and Appreciation to My Esteemed Guide **Mr.Rajendra talele EviaSearch connecting B2B partners**. His Unwavering Support, Encouragement and Guidance Have Been Instrumental Incompletion of My Dissertation. Throughout The Dissertation, His Guidance, Discipline, Foresightedness, Insights and Work Ethic Were a Great Source of Inspiration On me.

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Date: 20/06/2025

Sumit patel

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ACRONYMS

AI: Artificial Intelligence

CAPA: Corrective and Preventive Action

ERP: Enterprise Resource Planning

FDA: Food and Drug Administration

GMP: Good Manufacturing Practice

CRM: Customer Relationship Management.

KPI: Key Performance Indicator

MLA : Modern Language Association

QA: Quality Assurance

RFX: Request for [Information, Quotation, Proposal]

ROI: Return on Investment

UX/UI: User Experience / User Interface

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CHAPTER 1
INRODUCTION

Introduction

In the highly regulated and quality-sensitive pharmaceutical manufacturing industry, choosing a vendor is a strategic necessity rather than just a procurement choice. Vendors provide essential raw materials, packaging elements, contract manufacturing services, and analytical instruments that have a direct influence on the timeliness, compliance, and quality of products. In the past, pharmaceutical companies used manual procedures for vendor selection, including paper-based assessments, disjointed communication, and scoring based on intuition. Poor documentation, variable results, and overlooked vendor risks were common outcomes of these approaches. Globalization has made supply chains more complicated, rendering manual procedures outdated. Procurement solutions that incorporate automation, artificial intelligence (AI), data analytics, and compliance monitoring are examples of digital platforms.

The Study's Need

Regulators including the US FDA, EMA, and CDSCO actively monitor the pharmaceutical business. Recalls, warning letters, or legal repercussions may follow a single vendor-related error, whether it be because of subpar material quality or non-compliance. As cost-effectiveness, speed-to-market, and sustainability become more important, pharmaceutical companies need to improve their vendor management procedures.

This study tackles the need for a methodical comprehension of how digital technologies enhance vendor selection, with insights specific to the intricacies of the pharmaceutical industry.

Objective

To determine the digital platforms that are utilized in the pharmaceutical industry for vendor selection. to assess how these platforms enhance risk mitigation, compliance monitoring, and vendor evaluation. to evaluate how digital tools affect supplier performance, purchase speed, and cost savings. to provide advice on how to incorporate digital systems into pharmaceutical vendor selection procedures.

Scope

Manufacturers of pharmaceuticals and companies that handle contract development and manufacturing (CDMO) Coupa, GEP, Oracle SCM, Jaggaer, SAP Ariba, and other digital procurement tools Onboarding, qualification, risk rating, and performance reviews are some of the vendor selection processes. Case studies from the procurement and quality assurance departments in India and around the world.

Significance of the Study

The advantages of this research are: Procurement specialists looking for organized frameworks for digital vendor management Assurance of GxP standards and audit-readiness by quality and compliance teams The assessment of digital transformation by IT and operational leadership ROI Policymakers and pharmaceutical groups are creating policies for digitalization. Through this study, the theoretical advantages of digital vendor management in pharmaceuticals will be reconciled with practical results.

CHAPTER 2

LITERATURE REVIEW

Introduction

In pharmaceutical supply chains, choosing a vendor is crucial since it affects costs, compliance, delivery schedules, and, eventually, product safety. This chapter examines the body of research on vendor selection procedures, both digital and traditional, the development of procurement technology, and frameworks pertinent to the pharmaceutical industry. The strategic importance of data analytics in supplier evaluation, risk-based vendor management, digital procurement technologies, and regulatory expectations are some of the major themes.

Traditional Vendor Selection in Pharmaceuticals

Summary: Pharma vendor selection has hitherto mostly depended on audits, subjective grading methods, and manual screening. Cost, experience, and connections were frequently taken into consideration when making selections, and there were few resources available for continuous performance or risk monitoring.

Key Points:

- Manual systems are laborious, slow, and vulnerable to audits.
- Predictive insights and standardization were lacking in vendor evaluation.

Source: Rao, K. N. (2014). “Vendor Evaluation Techniques in Pharma Manufacturing.” *International Journal of Procurement Management*.

Rise of Digital Procurement Platforms

Summary: Digital procurement tools have revolutionized the sourcing, assessment, and management of vendors. Platforms such as SAP Ariba, Coupa, Oracle SCM, and Jaggaer provide supplier databases, performance dashboards, e-sourcing, and end-to-end procurement automation.

Key Points:

- ❖ Provide real-time, centralized access to vendor data.
- ❖ Assistance with RFX, qualification, and digital onboarding

- ❖ Boost cooperation between the financial, quality, and procurement departments.

Source: Deloitte. (2020). *Digital Procurement: Unlocking a New Era of Supplier Value*. <https://www2.deloitte.com>

Coupa. (2021). *Spend Management and Supplier Optimization*. <https://www.coupa.com>

Link: <https://www2.deloitte.com/>

Supplier Risk and Compliance Management

Summary: Pharma businesses must assess providers based on GxP, ISO, data security, and sustainability in addition to price and capacity. These days, digital platforms incorporate documentation portals, CAPA logs, blacklists, and regulatory checks.

Key Points:

- To pre-screen vendors, AI-based risk rating is employed.
- To prepare for audits, compliance data is digitally saved.
- Cybersecurity and ESG are now included in vendor scoring frameworks.

Source: McKinsey. (2021). *Managing Supplier Risk with Digital Tools*. <https://www.mckinsey.com>

Link: <https://www.mckinsey.com>

Data-Driven Decision-Making in Vendor Evaluation

Summary: Delivery lead times, financial stability, performance benchmarking, and defect tracking all depend on data analytics in today's vendor selection process. AI engines and dashboards facilitate the process of making transparent, unbiased decisions.

Key Points:

- Procurement dashboards now display vendor KPIs.
- Predicting vendor dependability and disruption risk is made easier by AI techniques.
- Traceability is improved and human labor is decreased with digital audits.

Source: *Harvard Business Review*. (2020). *AI in Procurement and Supplier Relationships*.
<https://hbr.org>

Link: <https://hbr.org/>

Research Gaps Identified

The pharmaceutical industry, where compliance, traceability, and patient safety make vendor selection more difficult than in conventional manufacturing, is the subject of very few studies, despite the growth of digital procurement technologies.

Observed Gaps:

- Absence of case studies on the digital deployment of pharmaceuticals.
- Very little research on digital platforms for regulatory audits.
- Insufficient information on the return on investment of digital vendor platforms in pharmaceutical.

Summary Table

Theme	Authors/Source	Key Insight
Manual Vendor Selection	Rao (2014)	Traditional approaches are time-consuming and risky
Digital Platforms	Deloitte (2020), Coupa (2021)	Automate and streamline procurement and evaluation
Risk and Compliance	McKinsey (2021), EMA (2022)	Platforms manage GxP and audit data more efficiently
Data Driven Selection	HBR (2020), Jaggaer (2023)	Predictive analytics improve supplier reliability
Pharma Specific Gaps	-	- Industry-specific data and frameworks are underdeveloped

Table 2.7

CHAPTER 3

RESEARCH METHODOLOGY

Overview

This chapter describes the process for evaluating how digital platforms improve the pharmaceutical industry's ability to choose vendors. It explains the sample size, data sources, research framework, data collecting and analysis techniques, and the justification for each step. The study employs a mixed-method approach to guarantee that it includes both qualitative and quantitative viewpoints from procurement experts.

Research Design

The research design used in this study is both analytical and descriptive. Its objectives include outlining current procedures and technological advancements in digital vendor selection and evaluating their efficacy in light of user input, key performance indicators, and practical application.

Research Methodology

- Type: Mixed-method (Quantitative + Qualitative)
- Nature: Cross-sectional
- Focus Area: Systems for evaluating digital vendors and purchasing pharmaceuticals.

Research Objectives

- The methodology is supported by the following improved objectives:
- To delineate the digital instruments presently employed in pharmaceutical vendor selection
- To assess their influence on procurement efficiency, compliance, and supplier performance.
- To assess user satisfaction and obstacles to adoption
- To provide a computerized vendor selection system tailored for the pharmaceutical industry

Data Collection Methods

Primary Data

- ❖ **Approach:** combination of semi-structured interviews and a structured questionnaire
- ❖ **Target Audience:** Procurement managers, supply chain executives, and quality auditors
- ❖ **Sample Size:** 50 participants from both domestic and international pharmaceutical firms
- ❖ **Tools Used:** Zoom/Google Meet (interviews), Google Forms (survey)

Survey themes included:

- The amount of time needed to onboard vendors.
- Digital tools such as SAP Ariba, Coupa, Oracle, Jaggaer, and GEP are used.
- Methods for measuring supplier performance.
- Mechanisms for documentation and auditing.
- Monitoring regulatory compliance.

Secondary Data

- Industry white papers, such as those from Deloitte and McKinsey.
- Pharma audit checklists and documentation for ERP systems.
- Printed journal articles and procurement reports.

Sampling Technique

- A purposive sampling approach was used, targeting professionals who actively participate in vendor selection or procurement digitalization. Inclusion criteria:
 - At least two years in a supply chain or pharmaceutical procurement position
 - Familiarity with ERP systems or digital platforms
 - Partnership with a regulated pharmaceutical company (compliant with GMP)

Data Analysis Techniques

Quantitative Data: Bar/pie charts, descriptive statistics (mean, frequency, percentage),

Qualitative Data: Open-ended interview replies coded thematically

Software Tools: Microsoft Excel, Google Sheets, and SPSS for tabulation, if desired

Metrics tracked included:

- Onboarding vendor time (days)
- The proportion of suppliers who have online profiles.
- Score for audit preparedness.
- Rate of mistakes in procurement records.
- Lower costs compared to manual procedures.

Limitations of the Study

- Only Indian pharmaceutical companies that are medium- and large-scale
- Each organization has a different level of digital maturity, which impacts comparability.
- Self-reported answers could contain prejudice.
- Time and privacy constraints prevented crucial procurement data from being accessed.

Ethical Considerations

- Participants were made aware of the study's objectives and confidentiality.
- The information was anonymised and safely stored.
- Only with verbal or written consent were interviews undertaken.

CHAPTER 4
DATA ANALYSIS & INTERPRETATION

Overview

This chapter examines the primary data gathered from 50 participants in pharmaceutical companies' supply chain, quality, and procurement departments. In addition to highlighting the present vendor selection process, the report assesses the effects of digital platforms on supplier performance, audit readiness, procurement efficiency, and regulatory compliance.

Use of Digital Platforms in Vendor Selection

Survey Question: Do you currently use any digital platform for vendor selection or procurement?

Digital Platform Usage in Pharma Vendor Selection

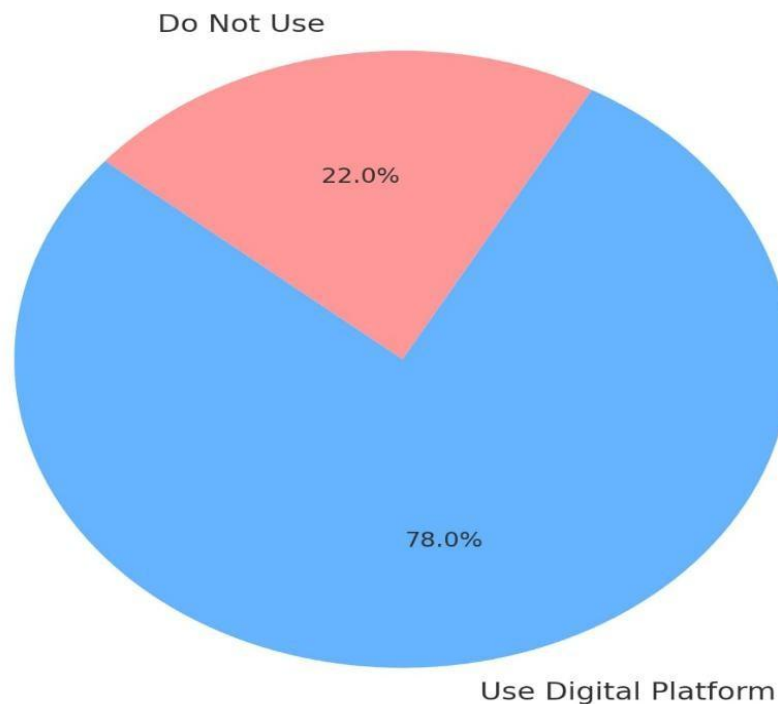


Figure 4.2 Data Analysis and Interpretation

Interpretation: A noteworthy 78% of pharmaceutical professionals say they source and onboard vendors using systems like SAP Ariba, Coupa, or Oracle, indicating that procurement is becoming more digitally mature.

Most Commonly Used Digital Tools

Digital Platform	Usage (% among users)
SAP Ariba	38%
Oracle SCM	22%
Jaggaer	18%
Coupa	15%
Others (GEP, Zoho)	

Table 4.3

Interpretation: Due to its incorporation into supplier databases and compliance monitoring capabilities, SAP Ariba is the most often utilized platform among the firms evaluated.

Vendor Onboarding Timelines

Question: How many days does it typically take to onboard a new vendor using your digital platform?

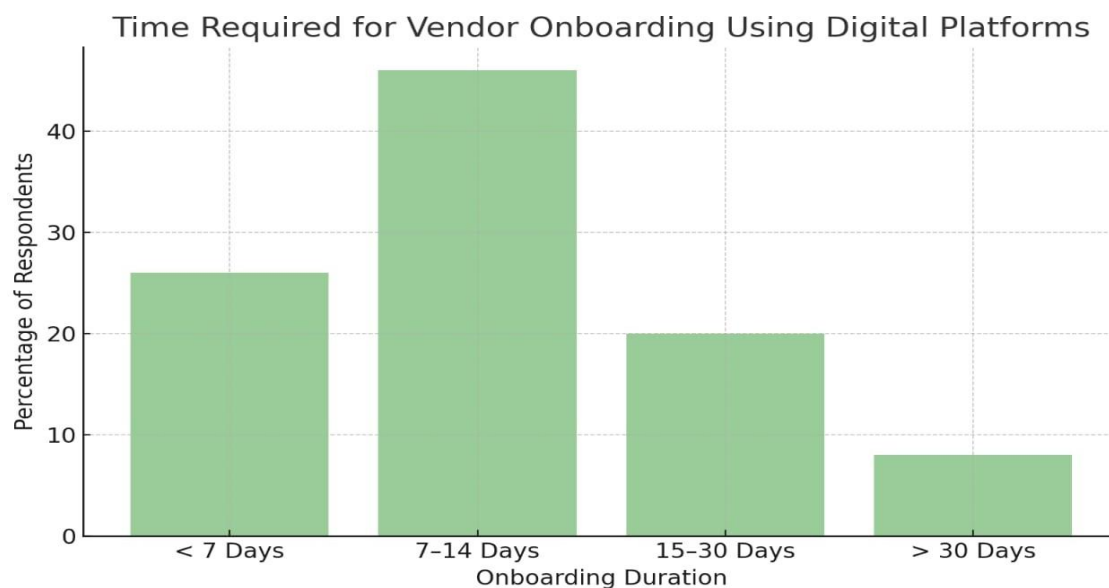


Figure 4.4 Data Analysis and Interpretation

Interpretation: Compared to conventional 30–45 day manual procedures, 72% of businesses onboard vendors using digital platforms in less than two weeks, showing improved process efficiency.

Impact on Procurement KPIs

KPI Improved	% of Respondents Agreeing
Reduced onboarding time	78%
Improved audit readiness	62%
Supplier performance tracking	59%
Reduced manual errors	55%
Faster regulatory reporting	46-59%

Table-4.5

Interpretation: The majority of participants commented on notable gains in operational and compliance-related KPIs, particularly audit readiness and onboarding time.

Challenges in Digital Vendor Management

Top 3 Challenges Identified:

- The initial expenditure for implementing a digital platform.

- Procurement staff resistance to reform.
- Deficits in system module usage training.

Interpretation: Internal opposition and training are significant impediments, particularly in legacy-driven pharmaceutical organizations, despite the fact that platforms offer significant benefits.

Qualitative Insights from Interviews

Key Themes:

Data centralization: "We no longer track vendor qualifications using email traces. The platform dashboard displays all of this information.

Audit Readiness: "With fewer findings, we passed our USFDA audit thanks to digital checklists and version control.

We employ predictive algorithms that identify vendors at risk of non-compliance based on prior incidents," says AI in Risk Scoring.

Interpretation: The main value drivers of digital platforms that were highlighted by the participants were transparency, compliance, and consolidated information.

Summary of Findings

- Pharma procurement teams are using digital technology at a rate of 78% and increasing.
- There are significant efficiency improvements in compliance, tracking, and onboarding.
- There are issues with training, staff adoption, and platform costs
- Making decisions based on data is one of the main benefits of using digital tools.
- Centralized documentation facilitates the management of regulatory audits.

CHAPTER 5

FINDINGS, SUGGESTIONS & CONCLUSION

Key Findings

According to the study and the qualitative feedback from procurement experts, the following conclusions highlight the significance and influence of digital platforms when choosing vendors for the pharmaceutical industry:

- 1. High Adoption of Digital Tools:** A significant amount of digital transformation in pharmaceutical sourcing is evident from the fact that 78% of respondents said they used at least one digital procurement tool to choose a vendor.
- 2. Vendor Onboarding Efficiency:** Instead of using the conventional 30- to 45-day processes, more than 70% of businesses use digital solutions to onboard vendors in less than 14 days.
- 3. Better Compliance and Audit Readiness:** Version-controlled records, standardized vendor checklists, and centralized digital documentation all contributed to respondents' increased audit readiness.
- 4. Improved Visibility and Performance Monitoring:** Platforms such as SAP Ariba and Coupa provide dashboards for real-time tracking of risk ratings, historical performance, and vendor KPIs.
- 5. Training and Change Management Gaps:** Despite the obvious advantages, businesses pointed to a lack of training, employee resistance, and the expense of system deployment as the main drawbacks.

Strategic Recommendations

The analysis's conclusions lead to the following suggestions for enhancing the pharmaceutical industry's digital platform vendor selection:

A. For Pharma Procurement Teams

- Adopt hybrid training methodologies (online + workshop) to improve teams' proficiency with platforms.
- To foresee problems with vendor compliance and supply interruptions, use predictive analytics.

- Involve QA and regulatory teams early in vendor digital onboarding for better audit alignment.

B. For Pharma Leadership

- Invest in scalable procurement platforms that are simple to integrate with quality and ERP systems.
- To defend digital investments, monitor ROI indicators such as supplier performance gains, audit scores, and time savings.
- Use shared digital workflows to promote departmental alignment among internal stakeholders.

C. For Platform Providers

- For pharma-specific requirements like GxP compliance and regulatory audit assistance, modify platform components.
- Provide plug-ins to integrate batch tracking with CDSCO/USFDA templates.
- Prioritize UX/UI design to guarantee usability and boost non-technical consumers' acceptance.

Conclusion

The choice of vendor has a direct impact on supply chain resilience, quality, and compliance, making it a crucial component of pharmaceutical manufacture. As demonstrated in this dissertation, digital platforms greatly increase the effectiveness, precision, and openness of vendor management procedures. Digital transformation is changing how procurement is done, from better compliance documentation and quicker onboarding to risk scoring and real-time performance monitoring.

But technology is not a panacea in and of itself. Strategic implementation, ongoing user training, and solid cross-functional cooperation are essential for real success. Businesses in the pharmaceutical industry who adopt these guidelines will be in a strong position to create vendor ecosystems that are compliant, strong, and prepared for the future.

CHAPTER 6

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