

Research and Publications

Research & Innovation

We conduct applied research in:

- Machine Learning Applications
- Statistical Modeling
- Data Science Innovation
- Six Sigma
- Process Optimization
- Lean Systems
- Artificial Intelligence
- Educational Technology

Our research focuses on solving practical business and organizational problems through analytical and technological innovation.

Industries We Serve

- Higher Education
 - Corporate Training Organizations
 - Manufacturing
 - Healthcare
 - Financial Services
 - Technology Companies
 - Government Agencies
 - Small Businesses and Startups
-

“Books & Publications” under **“Buy Books and Resources”** on the website

Published Books & Research

With over **14 published books** and numerous research publications in Data Science, Statistics, Lean Six Sigma, and Analytics, we provide knowledge-backed solutions grounded in research and practical application.

Our publications are used by students, professionals, educators, and organizations seeking deeper expertise in analytics, process improvement, and emerging technologies.

Available on: [Amazon](#) and other leading platforms.

Explore Our Publications → (Buy ‘Books and Resources’ on the home page)

“eBooks”

Explore and Buy eBooks on several related topics (These are quick reviews and excellent learning materials)

All the featured eBooks have the following details:

Book cover image

Title

Brief description

Amazon purchase link

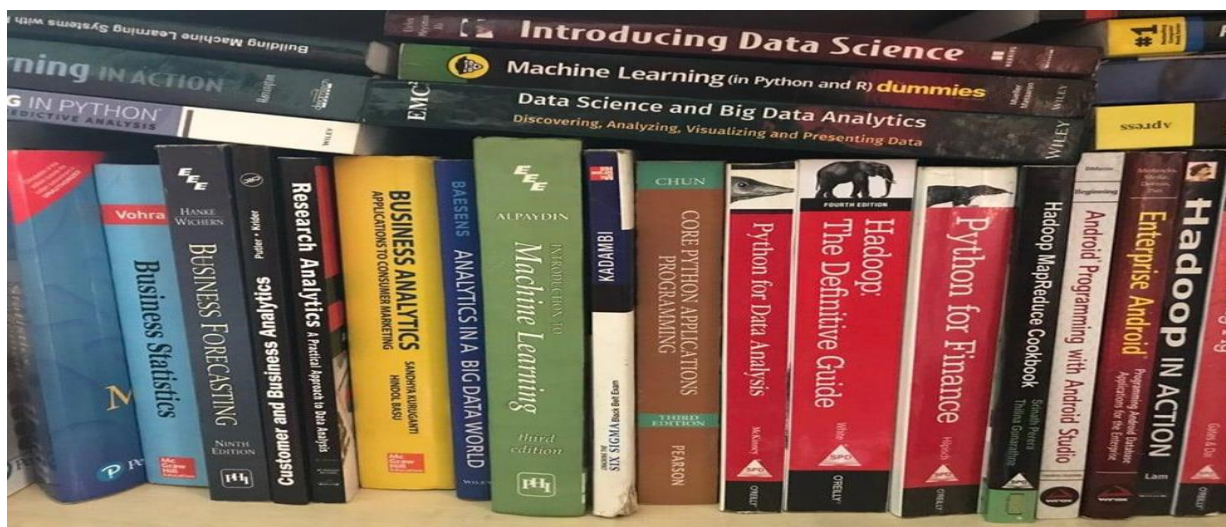
Website purchase link (future)

Example:

Categories:

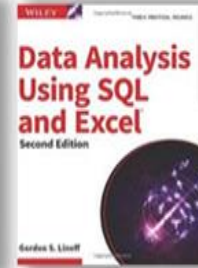
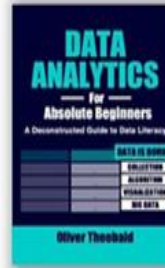
- Data Science
- Machine Learning
- Statistics for Data Science
- Lean Six Sigma
- Business Analytics
- Research Methods

Some examples of our core areas of research, training, and educational material are shown here.



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Books to Master Data Analytics



Introduction to Engineering Statistics and Lean Six Sigma

Statistical Quality Control and Design of Experiments and Systems

Third Edition

Introduction to Business Statistics and Lean Six Sigma

Statistical Quality Control and Design of Experiments and Systems

Third Edition

Research Publications

This page can include:

- Journal articles
- Conference papers
- Research reports
- White papers
- Case studies

Research Areas

- Statistical Modeling
- Machine Learning Applications
- Lean Six Sigma
- Process Improvement
- Business Analytics
- Data Science

This strengthens academic credibility.

Research and Publications

Journal Papers/ articles and papers presented in different Conferences

Published/and or presented over 30 papers in areas of Data Analysis, Business Analytics, Statistical modeling, Quality, Lean Six Sigma, Analytics, Industrial and Systems Engineering applications and Operations Management and Analytics.

The following is a partial list of some papers and future publications:

- Six Sigma Process Capability Analyses for Normal and Non- Normal Data: Methods, Measurements, Applications and Computer Analysis_ Case Studies, IEOM – International Conference on Industrial Engineering and Operations Management, Detroit, MI, June 2016.
- Incorporating the Voice of the Customer in Product and Service Designs to Meet and Exceed Customer Needs and Requirements using QFD and (HOQ): Applications in DFSS - Workshop on Lean Six Sigma, Smart Manufacturing and Lean Systems Research Group, Lawrence Technological University, March 2015.
- Six Sigma Process Capability Analysis When the Process Measurements do not follow a Normal Distribution: A Case Study - Workshop on Lean Six Sigma, Smart Manufacturing and Lean Systems Research Group, Lawrence Technological University, March 2015.
- Managing and Improving Quality – Integrating Quality, Statistical Methods, and Process Control - International Conference on Industrial Engineering and Operations Management, Detroit, MI June 2016.
- Designing Products and Services to Meet and Exceed Customer Expectations using Quality Function Deployment (QFD) and House of Quality (HOQ): Applications in Six Sigma and Design for Six Sigma (DFSS) _GBDI (Global Business Development Institute) Presentation, 2012.
- Assisting Higher Education in Assessing, Predicting, and Managing Issues Related to Student Success: A Web-based Software using Data Mining and Quality Function Deployment- International Conference of Academic and Business Research Institute (ABRI) Conference, Las Vegas, 2011.

- A Web-based Software using Data Mining and Quality Tools for Assessing, Predicting, and Managing Issues Related to Student Success in Higher Education - 16th GBDI conference, Las Vegas, March 19-21, 2014.
- **Six Sigma Methodology for Data Mining:** Integrating Data Mining and Six Sigma Quality Methodologies - 14th International Conference of the Global Business Development Institute (GBDI), Las Vegas, 2011. Submission Area: Management of Quality and Competitiveness,
- Process Capability and Measurement System Analysis(MSA): Designing and Implementing Gage R and R for Correct Assessment of Process Capability in Six Sigma Service and Manufacturing Environment, (to be submitted to SIX Sigma Forum Magazine – FROM BASICS TO BOARDROOM – a publication of ASQ (American Society for Quality). The article has received initial approval.
- Decision Support System Software for Implementing Six Sigma, Lean Six Sigma, and Design for Six-Sigma Programs for Manufacturing and Service Industries, *International Conference of the Global Business Development Institute (GBDI), Las Vegas, 2008 (This paper was awarded the best paper in Decision Sciences and was accepted for publication in GBDI Journal).*

Recent Papers:

- *Data Visualization: Uncovering the Hidden Pattern in Data using Basic and New Quality Tools*

Amar Sahay, Ph.D.

Professor, Six Sigma Master Black Belt

- **Cited- Work on the Web**

Many of the above books and research papers are cited on the web. I have provided the available links. Please note that the links are not complete.

- <https://bookshop.org/contributors/amar-sahay>
- <https://www.thriftbooks.com/a/amar-sahay/2150889/>
- https://www.amazon.in/Books-Amar-Sahay/s?rh=n%3A976389031%2Cp_27%3AAmar+Sahay
- https://www.oreilly.com/search/?query=author%3A%22Amar%20Sahay%22&extended_publisher_data=true&highlight=true&include_assessments=false&include_case_studies=true&include_courses=true&include_playlists=true&include_collections=true&include_notebooks=true&is_academic_institution_account=false&source=user&sort=relevance&facet_json=true&page=0&include_facets=false&include_scenarios=true&include_sandboxes=true&json_facets=true
- <file:///C:/Users/asahay/AppData/Local/Temp/ourteam-1.pdf>
- <https://www.chapters.indigo.ca/en-ca/books/contributor/author/amar-sahay/>
-

- https://books.google.com/books?id=hEC9DwAAQBAJ&pg=SL1-PA76&lpg=SL1-PA76&dq=amar+sahay&source=bl&ots=YzgWii2OX0&sig=ACfU3U2jIRpLdHda4ETeWY1Go_GM3N4ORQ&hl=en&sa=X&ved=2ahUKEwjFoaa718ztAhWGPM0KHcwJDIk4PBDoATAEgQICBAC#v=onepage&q=amar%20sahay&f=false
- **Papers:**
- <file:///C:/Users/asahay/AppData/Local/Temp/231-1.pdf>
- file:///C:/Users/asahay/AppData/Local/Temp/Chapter7-Sample-Volume-1_2014.pdf
- <https://www.amazon.com/Process-Capability-Analysis-Quality-Sigma/dp/0985044667>
- <file:///C:/Users/asahay/AppData/Local/Temp/230.pdf>
- <file:///C:/Users/asahay/AppData/Local/Temp/231-2.pdf>
- <file:///C:/Users/asahay/AppData/Local/Temp/231-1.pdf>
- <https://www.semanticscholar.org/paper/ASSISTING-HIGHER-EDUCATION-IN-ASSESSING%2C-AND-ISSUES-Sahay-Mehta/8e4cd7a59df5051b3a16f3678891044cc0a52c85>
- <file:///C:/Users/asahay/AppData/Local/Temp/LV10127.pdf>
- <https://www.amazon.com/Process-Capability-Analysis-Quality-Sigma/dp/0985044667>
- <http://docplayer.net/34265771-Workshop-on-lean-six-sigma-smart-manufacturing-and-lean-systems-research-lawrence-technological-university-march-26-2014.html>
- <https://slideplayer.com/slide/6638281/>

4. Training and Educational Material Sales

Featured publication:

(Please refer to the Buy eBooks, Buy Books, and Resources Sections (On the Home page) for a detailed list. Some of these books are listed here

Applied Statistical Concepts and Models for Machine Learning Practitioners

These publications align perfectly with your expertise in statistics, analytics, and machine learning.

Why Choose Us

A Unique Combination of Expertise

We bring together expertise in:

- ✓ Data Science
- ✓ Statistics
- ✓ Machine Learning
- ✓ Lean Six Sigma
- ✓ Business Analytics

- ✓ Education & Training
- ✓ Research & Publications

This unique combination enables us to deliver solutions that improve both analytical capabilities and operational performance.

We help students, professionals, and companies in:

- Transforming Data into Decisions
 - Data-Driven Learning for Modern Organizations
 - Analytics, Process Improvement, and Innovation
 - Empowering Organizations Through Data and Operational Excellence
 - Where Statistics, Technology, and Process Excellence Meet
-

Strategic Advantage

Your business now stands at the intersection of three highly valuable domains:

1. **Advanced Analytics (Data Science, ML, Statistics)**
2. **Operational Excellence (Lean Six Sigma)**
3. **Education & Knowledge Services**

That combination is relatively unique and rare and can become a powerful differentiator in the marketplace—especially for organizations seeking both technical expertise and operational improvement.
