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Lean Management in the Banking Industry: A Case Study

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References

- M. Alnajem, "Learning by doing: an undergraduate lean A3 project in a Kuwaiti bank," TQM J., vol. 33, no. 1, pp. 71-94, 2020, doi: 10.1108/TQM-01-2020-0010.
- [2] J. X. dos Santos and M. do Rosario Cabrita, "Lean Banking: Application of lean concepts and tools to the banking industry," in The 2016 International Conference on Systematic Innovation, 2016, pp. 1-16.
- [3] J. Moyano-Fuentes and S.D. Macarena, "Learning on lean: a review of thinking and research," Int. J. of Oper. & Production Man., vol. 32, no. 5, pp. 551-582, 2012, doi: 10.1108/01443571211226498.
- [4] N. Cetorelli and L. S. Goldberg, "Banking Globalization and Monetary Transmission," J. of Finance, vol. 67, no. 5, pp. 1811-1843, 2012, doi: 10.1111/j.1540-6261.2012.01773.x.
- [5] S. M. T. Zafar, "A Study on Universal Banking and its Impact on Indian Financial Market," J.l of Bus. Man. & Social Sciences Research, vol. 1, no. 2, pp. 81-91, 2012.
- [6] V. Njegomir and J. Demko-Rihter, "InsurTech: New Competition to Traditional Insurers and Impact on the Economic Growth," in Digital Transformation of the Financial Industry. Contributions to Finance and Accounting, S. Benković, A. Labus, M. Milosavljević, Eds. Cham, Switzarland: Springer, 2023, doi:10.1007/978-3-031-23269-5_8.
- [7] K. Mandić, B. Delibašić, S. Knežević, and S. Benković, "Analysis of the efficiency of insurance company in Serbia using the Fazzy AHP and TOPSIS methods," Economics Research - Ekonomska istraživanja, vol 30, no. 1, pp. 550-565, 2017, doi: 10.1080/1331677X.2017.1305786.
- [8] I. Akhisar, K. B. Tunay, and N. Tunay, "The effects of Innovations on Bank Performance: The Case of Electronic Banking Services," Procedia - Social and Behavioral Sciences, vol. 195, pp. 369-375, 2015, doi: 10.1016/j.sbspro.2015.06.336.
- [9] B. W. Oppenheim and M. Felbur, M., Lean for Banks: Improving Quality, Productivity, and Morale in Financial Offices, 1st ed. Boca Raton, FL, USA: Taylor & Franic, 2015.
- [10] M. Bakri, "Implementing Lean Tools to Streamline Banking Operations: A Case Study of a Small Lebanese Bank," Man. Studies and Econ. Systems, vol. 4, no. 2, pp. 131-144, 2019, doi: 10.12816/0052920.
- [11] W. Van Der Aalst, "Process mining," Communications of the ACM, vol. 55, no. 8, pp. 76-83, 2012, doi: 10.1145/2240236.2240257.
- [12] V. Grozdić and J. Demko-Rihter, "Economic evaluation of investment projects: determining the key factors for final investment decision," Lex localis-journal of local self-government, vol. 21, no. 1, 2023, doi: 10.4335/21.1.45-70(2023).
- [13] B. Maric and V. Grozdic, "Monte Carlo Simulation in Valuation of Investment Projects," in Annals of DAAAM & Proceedings, 2016, pp. 0686–0692, doi: 10.2507/27th.daaam.proceedings.099.
- [14] W. L. Carter, Process Improvement for Administrative Departments: The Key to Achieving Internal Customer Satisfaction. Charleston, SC, USA: BookSurge Publishing, 2008.
- [15] R. Reagan, "Gwinnett County's Department of Financial Services embraces Lean," Government Finance Review, vol. 27, no. 6, pp. 10+, 2011.
- [16] M. Graban, Lean Hospitals Improving Quality, Patient Safety, and Employee Engagement, 3rd ed. Boca Raton, FL, USA: Taylor & Francis Group, 2016.
- [17] K. Bozdogan, Roadmap for building lean supplier networks (roadmap tool). Cambridge, MA, USA: MIT Press, 2004.
- [18] M. L. Emiliani, "Improving business school courses by applying lean principles and practices," Quality Assurance in Education, vol. 12, pp. 175–187, 2004, doi: 10.1108/09684880410561596.

- [19] J. Oehmen, B. W. Oppenheim, D. Secor, E. Norman, E. Rebentisch, J. A. Sopko, M. Steuber, R. Dove, K. Moghaddam, S. McNeal, and M. Bowie, The Guide to Lean Enablers for Managing Engineering Programs, Joint MIT-PMI-INCOSE Community of Practice on Lean in Program Management, 2012.
- [20] A. C. Ward, Lean Product and Process Development. Cambridge, MA, USA: Lean Enterprise Institute, 2007.
- [21] S. Sá, L. Pinto Ferreira, F. Silva, J. Carlos Sá, M. Teresa, and G. Santos, "The Importance of Subcontracting and Its Relationship With Lean Philosophy in Automotive Industry", Int J Ind Eng Manag, vol. 13, no. 3, pp. 186–193, 2022, doi: 10.24867/ IJIEM-2022-3-311.
- [22] C. G. Chatzopoulos and M. Weber, "Digitization and Lean Customer Experience Management: Success Factors and Conditions, Pitfalls and Failures", Int J Ind Eng Manag, vol. 12, no. 2, pp. 73–84, 2021, doi: 10.24867/IJIEM-2021-2-278.
- [23] G. A. P. Geoffrey and B. K. Geoffrey. LAI's Lean Enterprise Value Business Simulation Aids in Mapping Enterprise Value Stream of Textron's Sensor Fuzed Weapons Program. MIT Libraries. https://dspace.mit.edu/handle/1721.1/83578 (accessed Jun. 1, 2023).
- [24] G. Pickrell, H. J. Lyons, and J. Shaver, "Lean Six Sigma implementation case studies," Int. J. of Six Sigma and Competitive Advantage, vol. 1, no. 4, pp. 369-379, 2005, doi: 10.1504/JJSSCA.2005.008503.
- [25] P. Atkinson, "Creating and implementing lean strategies," Management services: J. of the Institute of Practitioners in Work Study, Organization and Methods, vol. 48, no. 2, pp. 18-21, 2004.
- [26] S. Furterer and A. K. Elshennawy, "Implementation of TQM and lean Six Sigma tools in local government: a framework and a case study," Total Quality Management & Business Excellence, vol. 16, no. 10, pp. 1179-1191, 2005, doi: 10.1080/14783360500236379.
- [27] J. Heuvel, R. Does, and S. Bisgaard, "Dutch Hospital Implements Six Sigma," ASQ Forum Magazine, vol. 4, no. 2, pp. 11-14, 2005.
- [28] H. De Koning, J. P. Verver, J. van den Heuvel, S. Bisgaard, and R. J. Does, "Lean six sigma in healthcare," J. for Healthcare Quality, vol. 28, no. 2, pp. 4-11, 2006, doi: 10.1111/j.1945-1474.2006.tb00596.x.
- [29] B. H. Bader, M. A. Badar, S. Rodchua, and A. McLeod, "A study of the balancing of lean thinking and stakeholder salience in decision-making," The TQM Journal, vol. 32, no. 3, pp. 441-460, 2020, doi: 10.1108/TQM-04-2019-0108.
- [30] J. P. Womack and D.T. Jones, Lean Thinking. New York, NY, USA: Simon & Schuster, 1996.
- [31] M. Bucko, V. Schindlerova, and H. Krupova, "Application of Lean Manufacturing Methods in the Production of Ultrasonic Sensor," Tehnički vjesnik, vol. 29, no. 5, pp. 1671-1677, 2022, doi: 10.17559/TV-20220421141917.
- [32] D. E. Bowen and W. E. Youngdahl, "Lean service: in defense of a production-line approach," Int. J. of Service Industry Man., vol. 9, no. 3, pp. 207-225, 1998, doi: 10.1108/09564239810223510.
- [33] C. K. Swank, "The lean service machine," Harvard bus. review, vol. 8, no. 10, pp. 123-130, 2003.
- [34] C. Delgado, M. Ferreira, and M. C. Branco, "The implementation of lean Six Sigma in financial services organizations," J. of Manufacturing Technology Management, vol. 21, no. 4, pp. 512-523, 2010, doi: 10.1108/17410381011046616.
- [35] M. Leyer and J. Moormann, "How lean are financial service companies really? Empirical evidence from a large-scale study in Germany," Int.l J. of Operations & Production Management, vol. 34, no. 11, pp. 1366-1388, 2014, doi: 10.1108/ IJOPM-06-2013-0296.
- [36] G. Kovacs, "Lean Manufacturing as a Key to Success," Materials Science and Technology, vol. 1, pp. 8-13, 2016.
- [37] R. Abinaya and M. Suresh, "Analyzing the drivers for lean practices of commercial banking using interpretive structural modelling," in 2016 IEEE international conference on computational intelligence and computing research, 2016, pp. 1-4.
- [38] R. Secchi and A. Camuffo, "Mitigating the risk of failure in lean banking implementation: the role of knowledge codification," Production Planning & Control, vol. 32, no. 12, pp. 1–13, 2021, doi: 10.1080/09537287.2020.1784482.
- [39] G. Li, J. M. Field, and M. M. Davis, "Designing Lean Processes With Improved Service Quality: An Application in Financial Services," Quality Management Journal, vol. 24, no. 1, pp. 6-19, 2017, doi: 10.1080/10686967.2017.11918497.
- [40] A. Riva and L. Pilotti, "Digital and lean transformation in the bank and in the financial services: The experience of Unicredit Bank," Int. J. Manag. Res. Bus. Strategy, vol. 2, pp. 1-23, 2018.
- [41] Z. A. Khan, M. Ahmad, and S. Butt, "Implementation of lean practices in banks: a qualitative research," Independent Journal of Management & Production, vol. 10, no. 2, pp. 489-498, 2019, doi:10.14807/ijmp.v10i2.862.
- [42] Anonymous. "Wilcoxon Signed-Rank Test using SPSS Statistics." Laerd Statistics. https://statistics.laerd.com/spss-tutorials/ wilcoxon-signed-rank-test-using-spss-statistics.php (accessed Jun. 1, 2023).
- [43] N. Gjeldum, I. Veza, and B. Bilic, "Simulation of production process reorganized with value stream mapping," Tehnicki vjesnik, vol. 18, no. 3, pp. 341-347, 2011.
- [44] M. Alkher, M. Radošević, I. Beker, V. Čabarkapa, D. Toljaga-Nikolić, M. Carić, and S. Morača, "Case study of healthcare organization improvement with lean concept," Tehnički vjesnik, vol. 26, no. 3, pp. 845-851, 2019, doi:10.17559/TV-20180627080909.
- [45] Trizma. "Value added activities for our customers." Focus on Business. https://focusonbusiness.eu/en/blog/trizma/value-addedactivities-for-our-customers/4483 (accessed Jun. 1, 2023).
- [46] J. Cohen, Statistical Power Analysis for the Behavioral Sciences, 2nd ed. Hillsdale, NJ, USA: Lawrence Erlbaum Associates, 1998.
- [47] D. Navarro, Learning Statistics with R: A Tutorial for Psychology Students and Other Beginners (Version 0.5). Adelaide, Australia: University of Adelaide, 2015.
- [48] J. Basulo-Ribeiro, M. Amorim, and L. Teixeira, "How to accelerate digital transformation in companies with Lean Philosophy? Contributions based on a practical case," Int J Ind Eng Manag, vol. 14, no. 2, pp. 94-104, 2023, doi:10.24867/IJIEM-2023-2-326.