P-ISSN: 1659-2395; E-ISSN: 1659-3359

ELEVATING CUSTOMER SATISFACTION THE ROLE OF AI IN SAP FOR ENHANCED USER EXPERIENCE

Dr. Amarnath Mitra

Associate Professor, IT and Analytics, FORE School of Management, New Delhi, <u>orcid.id</u>: 0000-0002-1842-9994

Abstract

This paper explores the challenges businesses face when integrating AI into their digital marketing for financial services. It highlights the importance of human connection and ethical implications in the collection, processing, and delivery of information. The study provides a theoretical framework for financial services providers, AI developers, marketers, policymakers, and academics to better understand the precarious conditions faced by financially vulnerable customers and how to effectively reach them. This paper examines the impact of artificial intelligence (AI) on the purchasing department, focusing on its potential to improve performance. The research uses case studies of various AI technologies, including Synertrade, Silex, SAP Ariba, Jaggaer, and Ideapoke, to redefine the purchasing function, purchaser role, supplier relationship management policy, and interdepartmental collaboration.

Keywords: Elevating Businesses Customer Satisfaction and digital marketing

Introduction

Digital enterprises and transformation entrepreneurship are crucial for economic development, with technology impacting this field. Implementing digital strategies has enabled companies to contribute and strengthen digitalism. Entrepreneurs can bring field specialists to their businesses, creating development strategies based on real data. Innovation requires energy, enthusiasm, time, and creativity, which are essential components for successful results. Digitization is revolutionizing various aspects of life and business models, with analytics and IoT driving industrial businesses to interconnect products, value chains, and business models. This digital transformation is linked to a changing digital economy, where individuals, businesses, and societies become interconnected in real time. Digitization enables industries to turn product ideas into reality through trends like generative design and intelligent models. Cloud solutions, knowledge automation, additive manufacturing, and advanced robotics are driving innovation in manufacturing. Digital technologies are creating new business opportunities and challenges, while also eroding traditional barriers to entry. Smart products and factories are becoming smarter, faster, and cheaper, requiring a new pattern-based design approach and improved manufacturing approaches. Purchasing is increasingly adopting artificial intelligence (AI) for decision support, strategic monitoring, prediction, and collaboration technologies. Pioneering large groups, with high purchasing maturity, are widely using AI due to their ability to design and adopt AI-based



systems. This transformation requires enterprises to redefine and rethink almost everything, with new processes and structures emerging for cross-functional collaboration. The fully digital enterprise is a combination of people, technology, and organizational agility that is well-suited to the economic and social environment. However, preparing for a digital future is challenging due to the complexity of IT work, lack of resources, talent, and distractions from other priorities. Organizations must develop independent IT systems to compete effectively and focus on digital transformation, hoping for spontaneous success and luck to reach the top of the market.

Literature Review

Digital transformation is crucial for business growth, revenue, and profitability, and cannot be scaled up or considered independently of the operating model. (Siemens 2018). "In order to stay ahead of the competition, leading companies are increasing their investments in cloud computing and enterprise mobility, Industrial Internet of Things (IIoT) technology, Big Data analytics, Machine Learning and Artificial Intelligence (SAP 2017). A successful enterprisewide digital transformation, which extends to partners and suppliers, will be a key factor for future success. Digitalization plays a major role in contributing to the United Nations' sustainable development goals. (Covin, J., & Slevin, D., 1991) and without the transformation of existing the economic and environmental challenges of the future cannot be solved sustainably. However, there is a lot of confusion in the interrelationships and terms related to digitization or digitization: Digital business model, digital transformation, digital entrepreneurship. How do these terms relate to and with digitization, and how do they support firms to grow sustainably? To answer this question, we identified seven core terms related to digital based on a structured literature search within the field of management and economics, namely: Digital, Business Model, Digital Enterprise, Digital Technology, Digital Innovation, Digital Transformation and Digital Entrepreneurship. Following this, we analyzed previous literature to derive a common understanding and definition as a basis for the interrelationships within a conceptual framework. The definitions were presented in a case study with twelve innovation and research and development (R&D) managers from different business units of a German high-tech company. (Deans, P. C., and Kane, M. J., 1992). Based on these insights, we propose a conceptual framework of how Digital Readiness, Digital Technology and Digital Business Models can be sustainably linked to Innovation, moderated by a Digital Transformation Process. While digitization has gained momentum in recent years, it is here to stay (Nylén, D.; Holmstro, M.J, 2015). This is supported by impressive numbers where about 39.1 million results on Google for the search term "digital transformation", 818 thousand for "digital business model", 311 thousand for "digital enterprise" and, together, 7.3 billion results for the search term "Digital". Apparently, everything digital is not only a dominant topic in industry and academia, but especially when talking about the transformation of business models in a sustainable and circular economy. There is no conference, no new business model and no political discussion that lacks a reference to "digital" or its oft-used siblings, innovation or industry. However, a common understanding of the various terms is lacking, especially in academia. Confusion is essential (as with other



contemporary concepts, such as Artificial Intelligence), and "digital" risks worsen in a simple word (Kaplan, A.M.; Haenlein, M. Siri, 2019). Further complicating the digital puzzle, digital terms and relationships are not only perceived differently between different fields of study, but also within specific fields of research, such as the social sciences or engineering. Digital technologies are transforming the global economy, changing the rules of business, introducing new business models and redefining the category of business success. They change the way organizations operate and companies recognize that digital technologies enable them to get work done faster and at lower costs and, in many cases, offer their customers the opportunity to participate in the design and creation of products and services (OECD, 2018). Internally, digitalization provides the possibility for a different model of tasks and enables a completely new portfolio of coordination mechanisms based on modern information and communication technologies. Digital technologies include "computer hardware, software, transmission networks, protocols, programming languages, very large-scale integrated circuits, algorithms, and all the components and practices that belong to these various technologies." Digital technology enables you to integrate, store and transmit large amounts of information, and data shows that this is rapidly changing the way work is done and the way people behave at work. Digitization is certainly initiated and supported by the development of information and communication technologies; technology enables and improves its application. But digitalization is much more than the use of technological innovations because digital technology not only changes the way organizations operate, but also the way we think about organization. (Freeman, C., 1995). With digitalization, everything that has been said and talked about for decades has come to its full extent that information is the main resource of the organization, while the main organizational skill becomes the ability to collect, organize, manipulate and productively use available information. Digital technologies lead to new ways of organizing work - digital organization - and to the development of a new organizational form - digital organization. Digital organizations involve collaboration with multiple entities and less reliance on hierarchy for control and coordination. It also includes empowering employees, partners and users of digital tools to create products and/or services, as well as providing digital platforms for self-organized collaboration. The most basic forms of digital terminologies, often used synonymously, are digitization and digitization. Digitization refers to a technical process, i.e., "the integration of digital technologies into everyday life" (Fors, A.C., 2013). Viewing this technical process through the lens of information technology on coding and programming, digitization describes analog information being converted into a digital format, for example, making physical products programmable or communicable (Yoo, Y., 2010). In contrast, digitization has been described "as a socio-technological process of applying digitization techniques to broader social and institutional contexts that yield infrastructures of digital technologies. "Digital transformation "[brings] together firms from previously unrelated industries" (Yoo, Y.; Henfridsson, O.; Lyytinen, K., 2010). Data exchange, data generation, data analysis and data adaptation for actionable information are seen as necessary and important competencies in mastering this digital transformation process. With these skills in hand, the inevitable organizational change from digital technologies and digital business models can



lead to an improved business outcome (Wade, M. A, 2015.). Digital transformation does not stop at the often referred process level (Jabło nski, M.; Jabło nski, A., 2019): It carries profound consequences for all aspects of business, such as business models, services, products, etc. ., and includes the actions of all participants, such as customers (Matt, C.; Hess, T.; Benlian, 2015). As a consequence, (Kaltum, U.; Widodo, A.; Widiasmono, 2016) and several other authors argue that. Digital transformation is a profound change and accelerates business activities, processes, competencies and models to fully exploit the changes and opportunities in digital technology and its impact on society in a strategic and prioritized way".

Methodology

The research was analyzed using both quantitative and qualitative methods. Quantitative methods collect numerical data and use mathematical methods like statistics to make predictions. Qualitative methods, on the other hand, are inductive and use sources like literature, interviews, and basic theories to construct theories or hypotheses. Theoretical methods explore the meaning, purpose, or reality of the study, using ethnography and basic theoretical studies.

Data collection techniques Study population and sample selection. We are all aware that the pandemic has affected and affected every business in the world. In our country, in contrast to developed and developing businesses in our country by focusing on the contacts of managers and workers who were forced to do digital work during the pandemic. Primary data is collected exclusively through questionnaires, as they are the most commonly used method for research in digital business. Other methods like experiments and interviews should be used more frequently to expand the methodological base of research in this field. After extensive discussions, the paper has decided to use questionnaires for collecting necessary information.

The reasons for choosing this method for data collection are several and will be explained below:

- achieving the goals and being consistent with the theoretical axis of the work;
- fulfilling the need to collect a large amount of information on the basis of which the set objectives will be achieved;
- the fact that this method is widely used in the business field;
- limited time and at the same time available resources to do such a study.

Customer Satisfaction

Artificial intelligence aims to mimic the human brain's performance in computer programs, exploring its capabilities in detail. It is widely used in various industries, including business, entertainment, and commerce. Chatbots are examples of digital help applications used for various purposes. AI saves time in customer support and uses natural languages for interaction between humans and software. Enterprise resource planning (ERP) systems, which gather data about a company, have struggled to analyze it for decision-making. The integration of AI into ERP systems is growing due to its potential to improve data analysis, judgments, actions, and recommendations.



However, it is essential to assess the technology's limitations, potential areas of development, and suggestions for future study to improve performance.

The integration of AI and chatbots into enterprise resource planning (ERP) systems can lead to more effective and efficient results for managers. This involves automating mundane administrative tasks, allowing for more efficient use of available time. Artificial intelligence frees up managers' time to focus on other tasks, such as problem-solving, collaboration, strategy development, innovation production, employee development, and stakeholder communication. ERP systems that integrate AI and chatbots also enhance the system's design and usability, making it easier to control.

ERP software often has an excessive number of features and modules, making it difficult for users to interact with and operate. Lack of proficiency in using ERP systems can restrict access to relevant data. The learning curve for ERP programs varies, but incorporating AI and chatbots can make the interaction with the system seem more natural and lessen the negative impacts of the learning curve.

Elevating customer satisfaction in SAP (Systems, Applications, and Products in Data Processing) involves leveraging Artificial Intelligence (AI) technologies to enhance various aspects of the customer experience. SAP, being a leading provider of enterprise software solutions, offers opportunities to integrate AI into its platforms to drive customer satisfaction. Here are some key ways AI can play a role in improving customer satisfaction within the SAP ecosystem:

1. Personalized Customer Experiences:

- AI algorithms can analyze customer data and behavior to provide personalized product recommendations, content, and services tailored to individual preferences.
- > SAP can utilize AI to enhance user interfaces, making them more intuitive and personalized for each user, thus improving overall satisfaction with the software.

2. Predictive Analytics:

AI-driven predictive analytics within SAP can help forecast customer needs, identify potential issues, and recommend proactive solutions. This can contribute to a more seamless customer experience by addressing concerns before they escalate.

3. Chatbots and Virtual Assistants:

➤ Integrating AI-powered chatbots and virtual assistants into SAP systems can streamline customer interactions. These tools can handle routine queries, provide instant support, and guide users through various processes, thereby improving overall customer satisfaction.

4. Automated Customer Support:



AI can be used to automate certain aspects of customer support within SAP, such as ticket routing, issue resolution, and response generation. This not only accelerates support processes but also ensures consistency in service quality.

5. Sentiment Analysis:

Implementing AI-driven sentiment analysis on customer feedback and communication channels allows SAP to gauge customer satisfaction levels. This information can be used to identify areas for improvement and make data-driven decisions to enhance the user experience.

6. Enhanced Decision-Making with AI Insights:

AI can analyze large datasets generated within SAP to provide actionable insights. This helps businesses make informed decisions that positively impact customer satisfaction, such as optimizing processes, improving product features, or refining service delivery.

7. Automation of Repetitive Tasks:

AI-powered automation can reduce manual efforts and errors, leading to increased efficiency and reliability in SAP processes. This, in turn, contributes to a more satisfying user experience.

8. Continuous Learning and Improvement:

AI systems can learn from customer interactions and feedback, continuously improving their performance and adapting to changing customer preferences. This ensures that SAP solutions evolve to meet the evolving needs of users.

By strategically incorporating AI into SAP processes, organizations can create a more intelligent and customer-centric environment, ultimately elevating customer satisfaction. This involves a holistic approach that considers various touchpoints and processes within the SAP ecosystem to provide a seamless and personalized experience for users.

Conclusion

Artificial intelligence (AI) is widely used in various areas of ERP, benefiting businesses by improving their systems through machine learning and Natural Language Processing (NLP). AI is also used in other sectors, such as tracking consumer behavior, analyzing customer encounters on online shopping sites, and generating automated feedback. AI innovation has significant implications for the ERP market, but there is a lack of options for ERP software that uses AI. Current research focuses on predictive analysis, revenue projections, and understanding AI components. Future studies will explore business intelligence and Natural Language Processing. The Covid-19 pandemic has accelerated the digital transformation process in companies, viewing it as a solution for survival and reducing operating costs. Digitization has



prepared companies to be more competitive in both internal and external markets. However, businesses have stagnated in designing and implementing digitalization strategies and action plans. As a result, digital transformation has become an emergency for businesses, prompted by the pandemic and restrictive measures for prevention. Digital transformation should serve as a pillar for economic recovery, supported by financial instruments and other modalities. The pandemic has created a new narrative for businesses, with the potential benefits of digital transformation highlighted especially after the outbreak. The Covid-19 pandemic has forced businesses to adapt and innovate to stay relevant in the digital age. To overcome these challenges, companies must focus on improving productivity, providing excellent customer service, and facilitating communication through new sales channels. The digital transformation process has been accelerated, despite businesses not being prepared for it. Three main obstacles for firms to adopt digitization during the pandemic include lack of the right workforce skills, lack of technical knowledge, and lack of a specific strategy for the digital future.

Digital competencies are crucial for successful digitization, and employees must be fluent in various languages and tools. Lack of technical knowledge can limit the time and effort required to learn new digital processes. Additionally, lack of finance is a significant obstacle, as the cost of implementing new digital technologies may not be compensated by profits. Furthermore, IT security is not considered the primary obstacle to digitization, despite respondents not considering it as the main obstacle.

Reference

- 1. Agarwal R., Venkatesh V. (2002). Assessing a firm's web presence: a heuristic evaluation procedure for the measurement of usability. Inf. Syst. Res. 13 (2), 168–186.
- 2. Arun, R., Umamaheswari, M., Monica, A., Sivaperumal, K., Natarajan, S., & Mythily, R. (2023). Effectiveness Performance of Bank Credit on the Event Management Firms in Tamilnadu State. Data Science and Intelligent Computing Techniques, SCRS, India, 463-470.
- 3. Albers-Miller N.D., Royne Stafford M. (1999). International services advertising: an examination of variation in appeal use for experiential and utilitarian services. J. Serv. Mark. 13 (4/5), 390–406.
- 4. Alzahrani H. (2016). Artificial intelligence uses and misuses. Global J. Comput. Sci. Technol. 16 (1), 1–7.
- 5. Black J.S., van Esch P. (2020). Al-enabled recruiting: what is it and how should a manager use it? Bus. Horiz. 63 (2), 215–226.
- 6. Boerman S.C., Kruikemeier S., Zuiderveen Borgesius F.J. 2017. Online behavioral advertising: a literature review and research agenda. J. Advert. 46 (3), 363–376.
- 7. Brockmann E.N., Anthony W.P. (2002). Tacit knowledge and strategic decision making. Group Org. Manag. 27 (4), 436–455.
- 8. Butenko E.D. (2018). Artificial Intelligence in banks today: experience and perspectives. Financ. Credit 24 (1), 143–153.
- 9. Canhoto A.l., Clear F. (2020). Artificial intelligence and machine learning as business tools: a framework for diagnosing value destruction potential. Bus. Horiz. 63 (2), 183–193.



- 10. Madhumithaa, N., Mishra, A., Sruthi, S., Sivaperumal, K., & Adhav, S. (2023). Implications of Social Media and Socio-Economic Activities on Micro and Small Enterprises in India. International Journal of Professional Business Review: Int. J. Prof. Bus. Rev., 8(4), 5.
- 11. OECD. (2018). Digital Government Review of Morocco: Laying the Foundations for the Digital Transformation of the Public Sector in Morocco. . Paris: OECD Digital Government Studies.
- 12. Bapat, G., Ravikumar, C., & Shrivallabh, S. (2021). An exploratory study to identify the important factor of the university website for admissions during covid-19 crisis. Journal of Engineering Education Transformations, 35(1), 116-120.
- 13. Shanthi, P., Prakash, K. C., Arun, R., Nirmala, C., Kousalya, M., & Sivaperumal, K. (2023). Green HRM Practices and the Factors Forcing it: A Study on Health Care Entities in Chennai. International Journal of Professional Business Review: Int. J. Prof. Bus. Rev., 8(9), 25.
- 14. Sivaperumal, K. (2019). A Study on The Functioning of Co-Operative Bank and Job Satisfaction of Bharat Heavy Electricals Employees' Cooperative Bank Limited, Trichy. Think India Journal, 22(21), 796-809.
- 15. Arumugam, T., Arun, R., Natarajan, S., Thoti, K. K., Shanthi, P., & Kommuri, U. K. (2024). Unlocking the Power of Artificial Intelligence and Machine Learning in Transforming Marketing as We Know It. In S. Singh, S. Rajest, S. Hadoussa, A. Obaid, & R. Regin (Eds.), Data-Driven Intelligent Business Sustainability (pp. 60-74). IGI Global. https://doi.org/10.4018/979-8-3693-0049-7.ch005
- 16. Bapat, G. S., Chitnis, R. M., & Subbarao, P. S. (2022). The state of "Innovation" and "Entrepreneurship" in India-A Post Pandemic Bibliometric Analysis. Journal of Positive School Psychology, 6820-6826.
- 17. Sivaperumal, K. (2023). A Study Focuses on the Satisfaction of Policyholders Towards the Economic Growth of Life Insurance Corporation. European Economic Letters (EEL), 13(5), 755-767.
- 18. Arumugam, T., Arun, R., Anitha, R., Swerna, P. L., Aruna, R., & Kadiresan, V. (2024). Advancing and Methodizing Artificial Intelligence (AI) and Socially Responsible Efforts in Real Estate Marketing. In S. Singh, S. Rajest, S. Hadoussa, A. Obaid, & R. Regin (Eds.), Data-Driven Intelligent Business Sustainability (pp. 48-59). IGI Global. https://doi.org/10.4018/979-8-3693-0049-7.ch004
- 19. Arun, Bernard Edward Swamidoss, Venkatesan (2023), Impact of Hospitality Services on Tourism Industry in Coimbatore District, Journal of Namibian Studies History Politics Culture, Volume 33, Special Issue 3, Pp. 2381-2393.
- 20. Vijai, C., Bhuvaneswari, L., Sathyakala, S., Dhinakaran, D. P., Arun, R., & Lakshmi, M. R. (2023). The Effect of Fintech on Customer Satisfaction Level. Journal of Survey in Fisheries Sciences, 10(3S),6628-6634.
- 21. Bapat, G. S., & Gankar, S. S. (2019). Students recruitment strategies at higher educational institutes: A new world perspective—A review of the literature on higher education marketing. International Journal of Advance Research, Ideas and Innovations in Technology, 5(3), 1860-1864.



- 22. R. Arun, M. Umamaheswari, A. Monica, K. Sivaperumal, Sundarapandiyan Natarajan and R. Mythily, "Effectiveness Performance of Bank Credit on the Event Management Firms in Tamilnadu State", In: Satyasai Jagannath Nanda and Rajendra Prasad Yadav (eds), Data Science and Intelligent Computing Techniques, SCRS, India, 2023, pp. 463-470. https://doi.org/10.56155/978-81-955020-2-8-42
- 23. Singh, B., Dhinakaran, D. P., Vijai, C., Shajahan, U. S., Arun, R., & Lakshmi, M. R. (2023). Artificial Intelligence in Agriculture. Journal of Survey in Fisheries Sciences, 10(3S), 6601-6611.
- 24. Mythili, Udhayakumar, Umamaheswari, Arun (2023) Factors Determining Mutual Fund Investments in Coimbatore City, European Chemical Bulleting, 12(special issue 6), 4719–4727.
- 25. Arun, R. "A Study on the Performance of Major Spices in India." Recent Trends in Arts, Science, Engineering and Technology (2018): 149.
- 26. K. Rani, Dr. J.Udhayakumar, Dr. M.Umamaheswari, Dr.R.Arun,(2023) "Factors Determining The Purchases of Clothing Products Through Social Media Advertisements in Coimbatore City", European Chemical Bulleting, 12(special issue 6), 4728–4737.
- 27. Edson Nirmal Christopher, Sivakumar, Arun ,Umamaheswari (2023) Iiimmunoinformatic Study for a Peptide Based Vaccine Against Rabies Lyssavirus Rabv Strain Pv, European Chemical Bulleting, 12(special issue 9), 631–640.
- 28. Arun (2019), "Sustainable Green Hotels -Awareness for Travelers", International Journal of Emerging Technologies and Innovative Research ISSN:2349-5162, Vol.6, Issue 4, page no. pp343-347,http://doi.one/10.1729/Journal.20408
- 29. Arun R, and Bhuvaneswari R (2019). Buying behavior of meet's consumption relates to food safety from north and south part of the Coimbatore City. International Journal of Recent Technology and Engineering, 7, 429-433. https://www.ijrte.org/wp-content/uploads/papers/v7i5s/ES2177017519.pdf
- 30. Chandramouli Shivaratri, Prakash, Arun, Krishna Mayi, Kavitha, Sivaperumal (2023), Clothing Products Purchases through Social Media Advertisements and the Problems Involved, Remittances Review, Vol. 8, Issue 4, Pp. 3260-3268.
- 31. Akkur, S. A., R, R., S, S., P, D. K., Miryala, R. K., & Arun, R. (2023). Leadership Qualities Among Women Leaders in Educational Institutions at Bangalore City. International Journal of Professional Business Review, 8(9), e03772. https://doi.org/10.26668/businessreview/2023.v8i9.3772
- 32. K. C. Prakash, R. Arun, Ram Chandra Kalluri, Souvik Banerjee, M R Vanithamani, Biswo Ranjan Mishra(2023), Consumer Confidence Index and Economic Growth- Indian Context after the Covid-19, European Economic Letters, **Pp 746-754, DOI:** https://doi.org/10.52783/eel.v13i5.824
- 33. Pushkarprabhat D Saxena, Krishna Mayi, R. Arun, S. Santhosh Kumar, Biswo Ranjan Mishra, K. B. Praveen (2023), Impact of Artificial Intelligence on Healthcare Informatics: Opportunities and Challenges, journal of Informatics Education and Research,3(2), Pp. 2309-2316, https://doi.org/10.52783/jier.v3i2.384

