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# CUSTOMER EDUCATION IN OMNICHANNEL MARKETING – A SYSTEMATIC LITERATURE REVIEW<sup>1</sup>

## Summary

Purpose – The text aims to present the results of the analysis on the state of knowledge on Customer Education (CE) and propose future research directions in marketing area. The filtering criteria was the chance to apply the gathered information in the marketing area.

*Research method* – The method of the systematic literature review was applied. Regarding customer education keywords, I examined two databases (SCOPUS and Web of Science). Then the results were analysed with the assistance of VOSviewer and using content analysis (qualitative research). A total number of 79 articles was analysed.

*Results* – Customer Education (CE) is rarely examined, especially in marketing. The concept evolves from instructions to co-creation. Bibliographic analysis shows the relation of CE with CX, customer satisfaction and loyalty to the organisation when it aims for internal and external customers.

Originality |value|implications|recommendations – Due to the novelty of the problem and its development in business, it is worth stimulating debate on CE in science. The paper aims to fill a gap in literature reviews on the issue and might be a voice in pointing out future research directions. Future research can gravitate toward new channels of CE, learning communities, and the relationship between CE and: customer behaviour, CX, application of AI and data mining, and usage of learning management systems (LMS).

**Keywords**: customer education, customer behaviour, systematic literature review.

JEL classification: M31, I25

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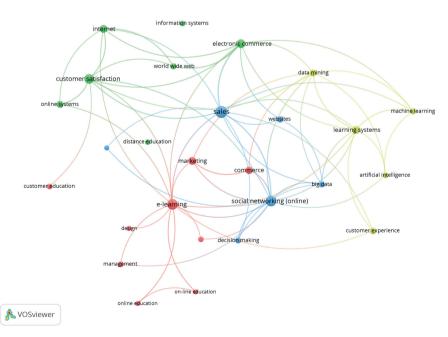
### 1. Introduction

Nowadays, organisations are facing tremendous changes in the way business operates. So-called "New Customers" have high expectations and are ready to co-create [Dahl et al., 2022; Gotwald, 2020], searching for new ways of becoming a part of the brand communities. The paper examines the problem of the state of knowledge on customer education (CE) in marketing [Gregor Gotwald-Feja, 2018; Reyneke Barnardo, 2019].

# 2. Methodology

The conceptual framework was a systematic literature review conducted on SCOPUS and the Web of Science databases. For the exact phrase "customer education", there were 207 and 91 search results from the last decade (in mid-July 2022).

CHART 1
Network visualisation of keywords related to CE



Source: author's own elaboration.

After eliminating the duplicates, I only selected journal papers and left those related to CE based on the summaries. It narrowed to 79 publications. Analysis of the papers' content eliminated further 12 articles. The results were extracted and analysed with VOSviewer software. The next step was reading the whole papers and extracting information related to the research questions asked in the paper. Based on notes, the material was synthesized to a form of a description.

CE is rarely examined, probably due to its novelty in business. Only five papers [Adrutdin et al., 2020; Brunetti et al., 2016; Dana, 2003; Noel et al., 1990; Sari et al., 2020; Sun et al., 2021] included the phrase "customer education" in their title. However, it lies between the e-learning cluster and the customer satisfaction cluster. The other keywords marked on the map can show future research areas, for example – the relationship between social networking and the CE or the direct relation between sales and CE.

All clusters consisted of the keywords of at least twelve co-occurrences.

Clusters of keywords related to CE

TABLE 1

Cluster 1	Cluster 2	Cluster 3	Cluster 4
<ul> <li>commerce</li> <li>customer education</li> <li>design</li> <li>e-learning</li> <li>management</li> <li>marketing</li> <li>online education</li> </ul>	<ul> <li>customer satisfaction</li> <li>distance education</li> <li>electronic commerce</li> <li>information systems</li> <li>Internet</li> <li>online systems</li> </ul>	<ul> <li>behavioural research</li> <li>big data</li> <li>decision making</li> <li>sales</li> <li>social networking [online]</li> </ul>	<ul> <li>artificial intelligence</li> <li>customer experience</li> <li>data mining</li> <li>learning systems</li> </ul>
web-services	world wide web	websites	machine learning

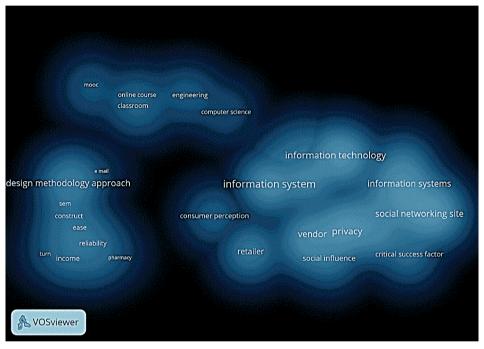
Source: author's own elaboration.

CE belongs to the first cluster, co-occurring with commerce, design, management and marketing, and online education and web services. Other clusters are rarely related directly to CE. For example – the relationship between CX and CE is seldom discussed in scientific publications, though this relation is a focal point for business practice [Krantzow, 2021].

Binary counting was applied to diagnose the number of occurrences of the term in the title and abstract at least 50 times. In terms of the area of research,

there are three major clusters. The first one is related to online learning. The latter ones – to the management and research methods, and information technology. The unexpected occurrence is customer perception, lying between the management and methodology cluster and the IT cluster, which is presented on Chart 2.

CHART 2
The density of words related to CE



Source: author's own elaboration.

Regarding publication dates, on average, the earliest ones are linked to information systems, engineering, collaboration and business intelligence. However, it is visible that around 2016, the attention of researchers is moving toward games, emotions and technology acceptance. Therefore, the newest publications focus on SEM, usefulness and consumer perception.

Afterwards, I conducted a qualitative analysis. There were three detailed research questions asked:

- 1. How is customer education (CE) defined?
- 2. What are the results of applying CE in businesses?
- 3. What tools used in CE have a marketing potential?

## 3. Customer education definition and main characteristics

CE is often limited to delivering educational or training materials to customers to inform and instruct them and improve their command of the company's products [Islam Akagi, 2018]. Additionally, CE supports the customer in further educating other customers and enhancing social interactions [Sun et al., 2021]. Gong et al. [2022, p.19] state that CE is the "degree to which a retailer proactively provides customers with the skills and abilities to use in-store retail technology". This means that: [1] CE is tangible and can be assessed; [2] customers are provided with more than instruction because [3] their abilities to use technology are a measure of CE effectiveness.

Some equalise CE with customer training [Rasouli, Vasifehdust, 2014] or public education [Kutzing et al., 2022]. However, it might be misleading, especially since CE programmes have become a tool for improving customer experience [Gong et al., 2022], satisfaction and loyalty [Yelton, 2009]. The idea of CE is advised in situations when a product might be a novelty or has a very complex character. For example, in the Cadillac Night Vision System [Geisler, Kiefer, 2004].

CE is essential to facilitate partnerships between companies and customers, in line with value co-creation [Dobele et al., 2017]. It is also a competitive strategy [Adrutdin et al., 2020]. Finally, it is crucial in businesses where it is required to prove the value for money for highly-professional and complex services [Buntrock, 1998].

The process of CE primarily requires a deep understanding of the client [Fosgerau et al., 2022]. Better interpretation results from adapting CE programmes to the client's exact preferences. The community pharmacies have the potential to enrich the customer experience with CE programmes [Pohjanoksa-Mäntylä et al., 2008], but some of them do not take the chance [Khojah, 2020]. The project implemented in 2021 and described by Fosgerau et al. [2022] aimed at improving pharmacists' knowledge and job satisfaction through a CE programme.

Regarding access, students who prefer online-only courses believe that contact with the instructor should be minimal. On the other hand – those who chose face-to-face learning believe that the more intense the connection with the teacher, the better it is. There is a similar relation between the student's preference for direct contact and the need to separate or join private and social life [Pan et al., 2016]. Intense contact with customers results in higher customer satisfaction [Goi et al., 2022] and perceived competence [Schmid et al., 2022]. It can also improve service delivery, especially concerning personalised products [Lin Ding, 2009; Santos, Spring, 2015]. On the other hand, the online CE gives the benefit of better work-life balance [Southernwood, 2008] with similar results.

## 4. Implementation of CE across industries

CE is broadly applied in complex services, challenging to be understood by customers [Abosag et al., 2017], for example, finance [Siddike et al., 2017], legal, IT, or Knowledge Intensive Business Services (KIBS) [Santos, Spring, 2015]. It is used in education itself, e-services [Henderson et al., 2003; Santhiya, Radhika, 2019], automotive [Geisler, Kiefer, 2004; Sissell, 2006], electric utilities [Makris et al., 2018], water management [Masia, van der Poll, 2021] or gas consumption [Townsend, 1979]. Nutrition is the area where CE is crucial [Natarajan et al., 2022], primarily while parents [Kowalczyk, 2020] are taught about their children's eating habits [Juffrie et al., 2020]. This issue seems to be the one which requires most attention in terms of future research.

In some cases CE application is complex due to the characteristics of the customers and the offerors [Hagmair et al., 2014]. Through CE programmes, financial institutions aim to increase clients' competence in online fraud protection [Butler Butler, 2018; Usman Shah, 2013]. However, some companies use mutual learning even further [Noel et al., 1990], creating their own schools financed to educate internal clients [Anaelo, 2007].

There are many benefits from CE implementation, including improvement of customer experience and customer loyalty [Rasouli, Vasifehdust, 2014; Islam, Akagi, 2018; Lin, Ding, 2009], growth of trust [Adrutdin et al., 2020; Eden, 1994] and perceived service quality [Abosag et al., 2017].

In KIBS [Santos, Spring, 2015], there is a need to improve the knowledge of SMEs in other areas, such as e-business [Archer et al., 2008] or Open Data [Alawadhi et al., 2021]. CE affects sales in a significant way (83% compared to advertising (15%)) [Li et al., 2011]. Therefore, additional programmes for distributors and sellers might be critical [Richardson, 2007].

Competent customers (participants of CE programmes) are more likely to spread positive information about the product and brand [Sun et al., 2021]. Moreover, there is a link between CE and customer citizenship [Gong et al., 2022].

There are barriers to CE implementation, apart from technical issues. For example, customers often face information overload, and some software solutions are employed to ease the choice of the product itself [Liu, 2022].

## 5. Tools of customer education

The tools used in distant education have developed significantly [Gephart et al., 1998; Kenney, Khanfar, 2009] due to the popularity of the internet and the

challenges of Covid-19. Online CE is a competitive option for face-to-face courses [Chen et al., 2020], just as in textbooks [Grensing-Pophal, 2010].

Customers prefer having access to multimedia tutorials in addition to the text version because their knowledge and ability to use the solution increases [Geisler, Kiefer, 2004]. Therefore, it is good to use various learning materials, paying particular attention to their usability. They can be distributed online or in the educational kiosks at points of sale [Hathaway et al., 2021]. In addition, time intervals and different answer popup quizzes (TIDAPQ) help diagnose where the video was watched [Yi et al., 2020] and support the materials' assessment.

The online tool for improving customer knowledge might be a Q&A ession [Quick et al., 2019] organised by the company. Depending on the organisation's profile, the session's goals can be divided into a few sections. The clients can be better understood [Cagle, 2010] because of the structure of questions or the doubts customers ease with empathising. Here the emotional and time investment level is high, so the potential for application is limited, probably, to the most valued customers. Nevertheless, every meeting with a salesperson might be a chance for a customer to be educated [Giles III, 2002] or at least – informed. For that reason, the employees having direct contact with customers should be equipped with knowledge of the brand and products, soft skills for communication, and some basic teaching skills.

The role of the online environment grows. It is visible in the part of electronic word of mouth or user-generated content [Luong et al., 2020] but also - in team building. Virtual classrooms create an experience close to an actual meeting with other students and teachers [Killedar, 2008]. Forums, where customers share their knowledge and ask questions, are an example of Peer-To-Peer learning. There are also virtual P3 communities due to the involvement of other users - peers - and the company's employees [Dholakia et al., 2009]. The role of a learning community [Balaji, Krishnan, 2020] is equally vital for it helps to keep the motivation of a learner, and it has the potential to build emotional involvement in the process of knowledge construction and brand delivering the course. Participation of local organisations (including NGOs) can support promoting specific solutions [Hathaway et al., 2021]. It is also crucial for improving learning results and social identification of its users [Dholakia et al., 2009]. Some research points out that place attachment also appears in virtual communities [Russell-Bennett Rosenbaum, 2022], which makes it possible for their use in brand building and CRM. Customer Social Participation is present in online communities through informal channel usage (for example, in communicators like WhatsApp). It provides clients with functional, social and hedonistic benefits [Lakmali et al., 2021]. Mobile applications might enhance the experiences with product consumption and have great informative potential [Doyle et al., 2005].

Complex educational programmes can be published as Massive Open Online Courses (MOOCs) and use existing offerors for distribution [for example, Udemy or Coursera]. The integrated Blended Learning and Knowledge Management model might help notice the relation between knowledge sharing and synchronous and asynchronous learning [Hasan et al., 2022]. The customer journey, including payment options [Santoso et al., 2019] and methods of content presentation [Alex Wang, 2002], can influence general customer satisfaction and retention, just as knowledge acquisition, during MOOC. MOOC gives a chance to apply edu-tainment; it is easy to understand due to the multimedia character of the content and has an opportunity to improve the outreach [Siddike et al., 2017]. For that reason, especially those companies less experienced with CE should consider using the frameworks.

For sure, in line with e-CE, there is still face-to-face teaching. It uses trade shows and trade books to present the products better, as well as conferences and seminars where the scope of discussed issues might be broader [Dana, 2003].

### 6. Conclusions

There are some misinterpretations in the literature in terms of CE definition, and they should be clarified. They might be the evolution of CE's role in business. The concept originates from simple instructions and develops into knowledge delivery, coaching and skills development, and nowadays, it is related to value co-creation. The challenge in terms of the CE definition is scope of its application, for example – does it include financial education or only education related to the company's products. It is especially important and interesting in case of children as clients (Gotwald, 2023).

CE, in terms of bibliographic analysis, is linked to customer satisfaction. Qualitative content analysis of the papers proved that most texts cover challenges related to customer loyalty and satisfaction and are based on case studies.

CE has many benefits for a company, including the influence on customer attitudes, experience, satisfaction, and loyalty. It also stimulates positive WOM and gaining trust. CE additionally improves identification with the organisation.

Various means of learning experience delivery are crucial in CE. Still, there is a challenge in evaluating customers' competence growth. Therefore, learning communities are a good direction in terms of CE delivery.

CE is rarely examined empirically. CE has an interdisciplinary character, covering educational, managerial, financial, organisational and social issues. The areas of implications of CE and its consequences on customer behaviour, satisfaction,

experience, loyalty and purchases are open to exploration. Similarly, the usage of various communication channels, omnichannel or phygital CE and the synergy between AI and data mining, application of learning management systems and use of social networking in CE are still open.

### References

- Abosag I., Baker T.L., Hall K.L., Voulgari A.-D., Zheng X., 2017, Antecedents and Consequences of Liking in Retail Service Relationships in China and Greece, "International Business Review", No. 26(3), pp. 566–578. DOI: 10.1016/j.ibusrev.20 16.11.003.
- Adrutdin K.F., Gadar K., Rahim N.S.A., Hasim M.A., 2020, *Customer Education in Islamic Banking in Malaysia*, "Journal of Critical Reviews", No. 7(8), pp. 127–131, DOI: 10.31838/jcr.07.08.26.
- Alawadhi N., Al Shaikhli I., Alkandari A., Kalaie Chab S., 2021, *Business Owners' Feedback toward Adoption of Open Data: A Case Study in Kuwait*, "Journal of Electrical and Computer Engineering", DOI: 10.1155/2021/6692410.
- Alex Wang, S.-L., 2002, Customer Testimonials and News Clips as Contextual Cues in the Consumer Cognitive Processing of Online Shopping: How Do They Build Trust and Then Increase Purchase Intention?, "Journal of Promotion Management", No. 9(1–2), pp. 145–162, DOI: 10.1300/J057v09n01\_12.
- Anaelo W.J., 2007, *Consistently Good Service. ENR*, "Engineering News-Record", No. 259(17), pp. 22–24.
- Archer N., Wang S., Kang C., 2008, *Barriers to the Adoption of Online Supply Chain Solutions in Small and Medium Enterprises*, "Supply Chain Management", No. 13(1), pp. 73–82, DOI: 10.1108/13598540810850337.
- Balaji R., Krishnan A.R., 2020, A Study on Factors Influencing Adoption of Massive Open Online Courses among the It Professionals, "Journal of Advanced Research in Dynamical and Control Systems", No. 12(5), pp. 206–209, DOI: 10.5373/JARDCS/V12I5/20201706.
- Brunetti F., Bonfanti A., Vigolo V., 2016, *Empowering Customer Education: A Research Agenda For Marketing Studies*, [in:] D. Vrontis, Y. Weber, E. Tsoukatos (eds.), University of Verona, pp. 393–405.
- Buntrock R.E., 1998, *Disintermediation: What's in It for Me?*, "Searcher: Magazine for Database Professionals", No. 6(5), pp. 8–10.
- Butler R., Butler M., 2018, Assessing the information quality of phishing-related content on financial institutions' websites, "Information and Computer Security", Vol. 26, No. 5, 2018, pp. 514–532.
- Cagle E., 2010, *Direct Mail Outlook: Education, Tools Remain Key*, "Printing Impressions", No. 53(12), https://www.scopus.com/inward/record.uri?eid=2-s2.0-799-

- 57604443&partnerID=40&md5=d1240cbfb2c3b1f2330d99847f04e476 [date of access: 29.07.2022].
- Chen T., Cong G., Peng L., Yin X., Rong J., Yang J., 2020, *Analysis of Aser Satisfaction with Online Education Platforms in China during the Covid-19 Pandemic*, "Healthcare (Switzerland)", No. 8(3), DOI: 10.3390/healthcare8030200.
- Dahl A.J., Peltier J.W., Milne G.R, 2022, *Reducing Information Asymmetry and Increasing Health Value Co-creation in a Rural Healthcare Context*, "Journal of Consumer Affairs", No. 56(2), pp. 512–535, DOI: 10.1111/joca.12447.
- Dana M.G., 2003, *Customer Education: Necessary, Simple, Affordable*, "New England Printer and Publisher", No. 66(2), pp. 21–22.
- Dholakia U.M., Blazevic V., Wiertz C., Algesheimer R., 2009, Communal Service Delivery: How Customers Benefit from ParticiPation in Firm-hosted Virtual P3 Communities, "Journal of Service Research", No. 12(2), pp. 208–226, DOI: 10.1177/1094670509338618.
- Dobele A., Fry J., Rundle-Thiele S., Fry T., 2017, Caring for Baby: What Sources of Information Do Mothers Use and Trust?, "Journal of Services Marketing", No. 31(7), pp. 677–689, DOI: 10.1108/JSM-02-2015-0104.
- Doyle M., Carus D.A., Pridham M.S., 2005, A System to Retrieve Consumer-facing Product Information, "British Food Journal", No. 107(10), pp. 781–791, DOI: 10.1108/00070700510623540.
- Eden S., 1994, Business, Trust and Environmental Information: Perceptions from Consumers and Retailers, "Business Strategy and the Environment", No. 3(4), pp. 1–8, DOI: 10.1002/bse.3280030401.
- Fosgerau C., Clemmensen N.B., Husted G.R., Kaae S., Rossing C., 2022, *A Mentalising Education Programme for Community Pharmacy Workforce*, "Pharmacy Education", No. 22(1), pp. 77–87, DOI: 10.46542/pe.2022.221.7787.
- Geisler S.P., Kiefer R.J., 2004, A Study of Customer Education Materials for the Cadillac Nght Vision System, 2004 SAE World Congress, DOI: 10.4271/2004-01-1091.
- Gephart D., Donahue D., Orgren R., Brooks W.B., Priest S.L., 1998, *Education Online: A Community Preceptor Computer Network*, "Teaching and Learning in Medicine", No. 10(4), pp. 232–239, DOI: 10.1207/S15328015TLM1004 7.
- Giles III, J., 2002, *Dream along with Me...*, "Quick Printing", No. 25(12), pp. 56–58.
- Goi M.T., Kalidas V., Yunus N., 2022, *Developing and Testing a Customer Value Co-creation Model of Higher Education Institutions*, "Journal of Marketing for Higher Education", DOI: 10.1080/08841241.2022.2076275.
- Gong T., Wang C.-Y., Lee K., 2022, Effects of Characteristics of In-store Retail Technology on Customer Citizenship Behavior, "Journal of Retailing and Consumer Services", No. 65, DOI: 10.1016/j.jretconser.2021.102488.
- Gotwald B., 2020, Komunikacja marketingowa w środowisku omnikanałowym. Potrzeby i zachowania klientów na rynku centrów nauki, Wydawnictwo Uniwersytetu Łódzkiego, Łódź.

- Gotwald B., 2023, *Implications of Pocket Money on Young Clients' Shopping Decisions International Comparison*, "European Research Studies Journal", Vol. XXVI, Issue 2, pp. 410–420.
- Gregor B., Gotwald-Feja B., 2018, Chances and Challenges for Contemporary Business from Human-Centred Design Philosophy to Omnichannel Environment, "Handel Wewnętrzny", No. 5 (376), pp. 73–80.
- Grensing-Pophal, L., 2010, Are Textbooks Onsolete? An Education in the Impact of Electonic Textbooks, "EContent", No. 33(3), pp. 18–22.
- Hagmair G., Amering M., Kaiser G., Katschnig H., 2014, Counselling Customers with Psychotropic vs. Cardiovascular Prescriptions: A Survey among Austrian Community Pharmacists, "Neuropsychiatrie", No. 28(4), pp. 178–184, DOI: 10.1007/s40211-014-0121-y.
- Hasan K.K., Mamun Mostofa S.K., Othman R., Mukherjee D., 2022, Blended Learning During Pandemic Through Knowledge Management: An Analytical Study, "Journal of Information and Knowledge Management", No 21, DOI: 10.1142/S0219649222400068.
- Hathaway Z., Polis H., Loomis J., Boroski J., Milano A., Ouyang, J., 2021, *A Utility Roadmap for Expanding Customer Adoption of Electric Vehicles*, "World Electric Vehicle Journal", No. 12(2), DOI: 10.3390/wevj12020081.
- Henderson J., Mcgoldrick E., Mcadam R., 2003, *A Critical Review of E-service in Northern Ireland Electricity*, "Managing Service Quality: An International Journal", No. 13(6), pp. 463–470, DOI: 10.1108/09604520310506522.
- Islam K.A., Akagi C., 2018, An Exploratory Study of Customers' Experiences with Their Financial Services' Customer Education Programs as It Impacts Financial Firm Customer Loyalty, "Services Marketing Quarterly", No. 39(4), pp. 330–344, DOI: 10.1080/15332969.2018.1514797.
- Juffrie M., Sartika R.A.D., Sparringa R.A., Wibowo L., Lukito W., 2020, Consumption Patterns of Sweetened Condensed Milk in the Diet of Young Indonesian Children and Its Potential Nutritional Health Consequences, "Asia Pacific Journal of Clinical Nutrition", No. 29(1), pp. 16–26, DOI: 10.6133/apjcn.202003\_29(1).0003.
- Kenney M.G., Khanfar N.M., 2009, Antecedents of Repurchase Intention: Propositions towards Using Marketing Strategy to Mitigate the Attrition of Online Students, "Services Marketing Quarterly", No. 30(3), pp. 270–286, DOI: 10.1080/15332960902993536.
- Khojah H.M.J., 2020, Community Pharmacy Services and Preparedness during Covid-19 Outbreak in Madinah, Saudi Arabia, "Saudi Pharmaceutical Journal", No. 28(11), pp. 1402–1407, DOI: 10.1016/j.jsps.2020.09.004.
- Killedar M., 2008, Effectiveness of Learning Process Using 'Web Technology' in the Distance Learning System, "Turkish Online Journal of Distance Education", No. 9(4), pp. 109–119.
- Kowalczyk M., 2020, Koncepcje wychowawcze współczesnych rodziców dzieci w wieku wczesnoszkolnym w aspekcie koherencji, Impuls, Kraków.

- Krantzow A., 2021, 4 Ideas to Boost Your Customer Experience with Customer Education. North Pass, https://www.northpass.com/blog/4-ideas-to-boost-your-customer-experience-cx-with-customer-education-in-2022 [date of access: 29.07.2022].
- Kutzing S., Rego C., Schoettle T., Adeem K., Stewart T., 2022, *Effective Point-of-Use Filtration for Lead Removal*, "Journal AWWA", No. 114(1), pp. 26–35, DOI: 10.1002/awwa.1843.
- Lakmali A.A.I., Abeysekera N., Silva D.A.C.S., 2021, Effectiveness of Customer Social Participation for Academic Purposes: A Case of Informal WhatsApp Groups, "Asian Association of Open Universities Journal", No. 16(3), pp. 326–343, DOI: 10.1108/AAOUJ-08-2021-0093.
- Li S., Sun B., Montgomery A.L., 2011, Cross-selling the Right Product to the Right Customer at the Right Time, "Journal of Marketing Research", No. 48(4), pp. 683–700, DOI: 10.1509/jmkr.48.4.683.
- Lin C.-P., Ding C.G., 2009, Comparing the Main Effects and Moderating Effects of Education among Three Models in IT Service: A Quantitative Approach, "Quality and Quantity", No. 43(4), pp. 617–633, DOI: 10.1007/s11135-007-9150-y.
- Liu L., 2022, *E-Commerce Personalized Recommendation Based on Machine Learning Technology*, "Mobile Information Systems", DOI: 10.1155/2022/1761579.
- Luong D.B., Wu K.-W., Vo T.H.G., 2020, *Difficulty Is a Possibility: Turning Service Recovery into E-WOM*, "Journal of Services Marketing", No. 35(8), p. 1000–1012, DOI: 10.1108/JSM-1-2019-0487.
- Makris P., Efthymiopoulos, N., Nikolopoulos V., Pomazanskyi A., Irmscher B., Stefanov K., Pancheva K., Varvarigos E., 2018, *Digitization Era for Electric Utilities: A Novel Business Model through an Interdisciplinary S/W Platform and Open Research Challenges.* "IEEE Access", No. 6, pp. 22452–22463, DOI: 10.1109/ACCESS.2018.282 8323.
- Masia O.A., van der Poll, J.A., 2021, *A Framework for Agile Project Management for the Water Industry inDeveloping Economies*, "Journal for Global Business Advancement", No. 14(1), pp. 70–92, DOI: 10.1504/JGBA.2021.114320.
- Natarajan T., Jayadevan G.R., Jayapal J., 2022, Consumption of Branded Functional Beverages Post-Covid Pandemic: An Empirical Investigation in a Developing Economy Using Behavioral Change Models, "Journal of Food Products Marketing", No. 28(3), pp. 132–151, DOI: 10.1080/10454446.2022.2058900.
- Noel J.L., Ulrich D., Mercer S.R., 1990, *Customer Education: A New Frontier for Human Resource Development*, "Human Resource Management", No. 29(4), pp. 411–434, DOI: 10.1002/hrm.3930290407.
- Pan C.-C., Sivo S.A., Goldsmith C., 2016, A Prelude to Strategic Management of an Online Enterprise, "TechTrends", No. 60(3), pp. 226–232, DOI: 10.1007/s11528-016-0042-7.
- Pohjanoksa-Mäntylä M.K., Kulovaara H., Bell J.S., Enäkoski M., Airaksinen M.S., 2008, *Email Medication Counseling Services Provided by Finnish Community Pharmacies*, "Annals of Pharmacotherapy", No. 42(12), pp. 1782–1790, DOI: 10.1345/aph.1L348.

- Quick B.L., King A.J., Reynolds-Tylus T., Moore M., 2019, An Evaluation of a Motor Vehicle Facility Campaign with an Established Statewide Donor Registry: A Test of Sustainable, Evidence-based Intervention Strategies, "Clinical Transplantation", No. 33(3), DOI: 10.1111/ctr.13475.
- Rasouli G., Vasifehdust H., 2014, Exploring Advantages Disadvantages Paradox of Customers Education Issue and Their Expertise and Loyalty in Iran's Investment Services Stock Broker Firms, "Advances in Environmental Biology", No. 8 (12), pp. 1111–1120.
- Reyneke M., Barnardo C., 2019, *Yuppiechef: From Clicks to Bricks an Omnichannel Approach for a South African Business*, "Emerald Emerging Markets Case Studies", No. 9(3), pp. 1–17, DOI: 10.1108/EEMCS-05-2019-0107.
- Richardson M., 2007, Crest of a Wave, "New Electronics", No. 40(20), pp. 54–55.
- Russell-Bennett R., Rosenbaum M.S., 2022, *Editorial: Opportunities in the New Service Marketplace*, "Journal of Services Marketing", No. 36(4), pp. 445–449, DOI: 10.1108/JSM-04-2022-0121.
- Santhiya M.P., Radhika R., 2019, A Study on Factors Affecting Customers in Usage of Mobile Banking, "Journal of Advanced Research in Dynamical and Control Systems", No. 11(8 Special Issue), pp. 805–809.
- Santos J.B., Spring M., 2015, Are Knowledge Intensive Business Services Really Co-produced? Overcoming Lack of Customer Participation in KIBS, "Industrial Marketing Management", No. 50, pp. 85–96, DOI: 10.1016/j.indmarman.2015.04.005.
- Santoso H.B., Desprianto D.A., Nurrohmah I., Nursalamah R.K., Putra P. O.H., 2019, Customer Journey Construction of the Indonesian Open-education Resources Platform, "International Journal of Emerging Technologies in Learning", No. 14(24), pp. 18–30, DOI: 10.3991/ijet.v14i24.12045.
- Sari H., Firmanzah F., Harahap A.A., Siahaan B.C., 2020, *The Role of Customer Education: A Repeated Cross-sectional Study*, "Journal of Science and Technology Policy Management", No. 12(2), pp. 193–214, DOI: 10.1108/JSTPM-03-2020-0068.
- Schmid D., Staehelin D., Bucher A., Dolata M., Schwabe G., 2022, *Does Social Presence Increase Perceived Competence?*, "Proceedings of the ACM on Human-Computer Interaction, 6(GROUP)", DOI: 10.1145/3492845.
- Siddike M.A.K., Kohda Y., Hoque M., 2017, *Application of MOOCs for Borrowers' Financial Education in Microfinance*, "Knowledge Management and E-Learning", No. 9(2), pp. 160–176.
- Sissell K., 2006, ACSH Petitions EPA to Change on Risk Assessments for Carcinogens, "Chemical Week", No. 168(4), https://www.scopus.com/inward/record.uri?eid=2-s2.0-3374900 2549&partnerID=40&md5=c729bcf28456fa2d7cf253afcac7b8cf [date of access: 29.07.2022].
- Southernwood J., 2008, *Distance Learning: The Future of Continuing Professional Development*, "Community Practitioner: The Journal of the Community Practitioners' Health Visitors' Association", No. 81(10), pp. 21–23.

- Sun X., Foscht T., Eisingerich A.B., 2021, *Does Educating Customers Create Positive Word of Mouth?*, "Journal of Retailing and Consumer Services", No. 62, DOI: 10.1016/j. jretconser.2021.102638.
- Townsend G., 1979, Energy Conservation Gas Gets On With It, "PEMEC 79", Conference Paper, https://www.scopus.com/inward/record. uri?eid=2-s2.0-85095898290&partnerID=40&md5=2804389deef7018842cf94b8 253b4cad [date of access: 29.07.2022].
- Usman A.K., Shah M.H., *Critical Success Factors for Preventing e-Banking Fraud*, "Journal of Internet Banking and Commerce", Vol. 18, No. 2, pp. 1–154.
- Yelton R., 2009, Contractors, "Concrete Producer", No. 27(6), pp. 13–14.
- Yi E., Lim H., Jo J., 2020, Automatic Judgement of Online Video Watching: I Know Whether or Not You Watched, "Mathematics", No. 8(10), pp. 1–19, DOI: 10.3390/math8101827.