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Qualitative Literature Analysis: The Current Challenges and their Solutions in the Beauty Care industry

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Abstract

Purpose: This research explores to (1) identify the leading challenges that the beauty care industry faces currently, which includes sustainable development, ethics, and industry laws, (2) describe how these challenges impact industries' practices and customer experience, and (3) propose plausible strategies to address these issues in an effort to enhance sustainability, ethical business practices, and compliance with legal norms in the beauty care industry. **Research design, data and methodology:** The research approach used is the systematic literature review approach to identify the relevant literature that addresses the current challenges in the beauty care industry and to assess the results of prior studies. **Results:** The finding indicated the following solutions to handle the current issues in the beauty industry: Solution to (1) Environmental Impact: Sustainable Production and Packaging, (2) Ethical Concerns: Enhancing Supply Chain Transparency, (3) Regulatory Challenges: Proactive Compliance and International Standardization, and (4) Technological Challenges: Personalization and Digital Engagement. **Conclusion:** Based on the conclusions made in the findings' section, this research examines the implications of the solutions to provide an insight into how the strategies can guide future practices in the beauty care industry. It also points out how these insights can be applied by industry practitioners to improve sector operational and strategic performance.

Keywords : Beauty Care Industry, Environmental Factor Analysis, Qualitative Methodology

JEL Classification Code: L16, C35, Q56

1. Introduction

The cosmetic products and beauty care products including skin care, hair care, wellness products and cosmetics have a very important place in the global market and show a deep influence on the economy and the market share (Amberg & Fogarassy, 2019). It is a sector that has experienced significant growth in recent years and is constantly adapting to new changes due to changing customer needs and technological developments (Nanda et al., 2021). The beauty industry itself continues to thrive and constantly develops new products that reflect the current standards of aesthetics and personal care because beauty standards are constantly changing (Laham, 2020). This industry has a very broad distribution network, which is

available in different levels of retailing and online selling to reach consumers in different parts of the world. Furthermore, it has been leading in the integration of innovative solutions like augmented reality in the demonstration of products including virtual skin care trials, to strengthen its market position. This rapid growth is also supported by the trends toward the creation of sustainable and ethical products due to the raising awareness of consumers concerning environmental and ethical problems.

The beauty care industry has many problems which include, environmental concerns on waste and resource management, social issues like animal testing and labor, and global legal requirements that are complex and differ from country to country.

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- Identify the leading challenges that the beauty care industry faces currently, which includes sustainable development, ethics, and industry laws.
- Describe how these challenges impact industries' practices and customer experience.
- Propose plausible strategies to address these issues in an effort to enhance sustainability, ethical business practices, and compliance with legal norms in the beauty care industry.

The significance is to focus on the issues of sustainability, ethical concerns, and regulation of the beauty care industry. Implementing sustainable measures can greatly decrease the level of harm to the environment, appealing to customers with environmentally friendly products and minimizing harm to nature (Sadiq et al., 2021). The companies that embrace ethical practices like fair labor conditions and no animal testing will also stand to gain and therefore enjoy a better reputation among customers and hence better customer loyalty (Fortunati et al., 2020). Furthermore, it can be stated that the understanding and management of international regulations efficiently enables firms to avoid legal risks and market exit. Combined, addressing these issues not only contributes to the maturation of the industry but also increases customer satisfaction, by ensuring that products and services meet the new standards and values of contemporary society. It is believed that the above alignment would improve corporate responsibility, thus making the industry sustainable and profitable in the long-run.

2. Literature Review

2.1. Environmental Impact

The beauty care industry has been a concern to the environment since it is a major pollutant and depletant of natural resources. It is well known for the use of plastics for packaging products among which very few are biodegradable and the rest become a menace to the environment by either filling the landfills or the ocean. De et al., (2023) looked at the global beauty industry and found that it manufactures more than 120 billion units of packaging every year, thus exacerbating the problem of plastic waste. The environmental impact is worsened through depletion of valuable resources and excessive emission of carbon depending on the nonrenewable resources like petroleum used in the synthetic cosmetics (Hossain et al., 2023). The literature also highlights the high levels of water use during product manufacturing that exert pressure on water resources especially in water-stressed regions (Aguar et al., 2022). There is still much room for

improvement in this respect, however: some companies are already developing biodegradable single-use items or promoting the use of reusable products, but these measures are not yet standard throughout the industry. This calls for the enhancement of the legal requirements as well as the measures that uphold the sustainable practices in the beauty care industry to address the extensive effects of ecological consequences.

2.2. Ethical Concerns

The ethical considerations in the beauty care industry include animal testing and the issues of exploitation of the supply chain (Feng et al., 2020). Even with the increasing awareness of consumers for such products, animal testing is still a common practice in areas where the practice is not unlawful. 115 million animals die every year for experimenting with cosmetics across the globe, which causes important ethical issues and customers' protests (Taylor & Alvarez, 2020). The globalization of supply chains is another source of risks associated with labor rights abuses, such as low wages and harsh working conditions, in countries where workers' rights are not protected. The prior study explains how mica, a material used in manufacturing cosmetics, is sourced in areas where the use of child labor is rife, and the supply chain is not well-disclosed. These ethical issues are not only pertinent to the consumers' perception, but also to the corporate image since consumers have shifted their focus to ethical brands that practice high levels of corporate transparency. This growing consumer consciousness has forced some companies to obtain ethical sourcing certifications and make their supply chains more transparent. However, there is still much to be done to ensure that these ethical issues are dealt with appropriately and this requires broad changes within the industry.

2.3. Regulatory Challenges

Another problem of this beauty care industry is the regulatory issues, which are complex as they are due to the different requirements of the global markets (Spacova et al., 2023). Currently, the European Union for example, has some of the most stringent laws governing cosmetics, which have prohibited over 1,300 chemicals regarded as dangerous, unlike the United States where only eleven chemicals are prohibited in cosmetics (Ferreira et al., 2022). This makes it a very confusing world for any company that is trying to go global, as legal systems and compliance can differ greatly from country to country, which is both time consuming and expensive (Fentem et al., 2021). In addition, there is a growing pressure for clearer labeling and the use of safer substances as more consumers and activist organizations call for more credible and clearer labeling from

manufacturers of beauty products (Chavhan, 2022). There are also tendencies in which regulatory agencies demand higher levels of safety for consumers thus resulting to higher levels of testing and validation of new products (Ferreira et al., 2022). This regulatory environment does not only have an impact on the product portfolios and market access strategies, but also poses challenges for constant compliance and adaptation to the global market environment.

2.4. Technological Innovations and Consumer Behavior

Technology is playing a major role in changing the dynamics of the beauty care industry and there are changes observed in the consumer engagement through the use of digital technologies and Artificial intelligence. Augmented reality (AR) solutions enable cosmetics application testing or skincare result simulation before the purchase, which contributes to the improved consumer experience and minimized returns. The prior study proves that with the help of AR tools, the consumer satisfaction rate has risen by 25% and the rate of returns decreased by 30%, indicating the benefits of these technologies in the context of consumer decision-making (Kazmi et al., 2021). Furthermore, the increased use of artificial intelligence in personalization is an essential trend nowadays because machines can learn consumers' skin types, preferences, and history to prescribe the appropriate product formulations. They are not only effective in enhancing customer satisfaction, but also in increasing customer loyalty through better match between product and consumer attributes. However, the level of technology adoption differs with specific segments of consumers being reluctant to share data and having issues with privacy. According to Sima et al. (2020), one of the emerging concerns is a lack of adequate knowledge of consumer behavior when it comes to the use of technology, which can be considered as an area of opportunity and potential focus for businesses and organizations (Sima et al., 2020).

2.5. Research Gap

Despite the fact that there are lots of researches that describe individual issues linked with the beauty care market, there are still few studies that would link these issues with the progression of technologies and shifts in consumer behavior. Prior work mostly focuses on the subjects of sustainability, ethics, and technology as independent variables without exploring the ways they interact to influence consumer trust and compliance. Moreover, the existing research is insufficient in terms of considering the specific responses of different groups of consumers to ethical and environmental initiatives in the

industry. This research aims at addressing this gap through examination of the relationship between environmental challenges, ethical concerns and regulators on the technology uptake and customer response in the beauty care sector.

Table 1: The Gap of the Literature

Gap in the Literature	Previous Evidence
The existing research is insufficient in terms of considering the specific responses of different groups of consumers to ethical and environmental initiatives in the industry.	Amberg and Fogarassy (2019), Nanda et al. (2021), Laham (2020), Sadiq et al. (2021), Fortunati et al. (2020), De et al., (2023), Aguiar et al. (2022), Taylor and Alvarez (2020), Spacova et al. (2023), Fentem et al. (2021), Chavhan (2022), Ferreira et al. (2022), Kazmi et al. (2021), Sima et al. (2020)

3. Methodology

3.1. Research Design

The research approach used in this study is the systematic literature review approach to identify the relevant literature that addresses the current challenges in the beauty care industry and to assess the results of prior studies. It would be important to achieve a precise and broad definition of the effects of the environment on business, ethical issues, legal aspects and the role of the new technologies on the consumers.

3.2. Screening and Selection Processes

The criteria for selecting the studies for this literature review can be defined in accordance with the PRISMA flowchart which was designed to offer a clear and concise guidance on how to include articles (Oláh et al., 2020). It is a well-known process of identification, screening, eligibility, and inclusion, which are used in various researches.

A preliminary search was carried out in academic databases like Google Scholar, Business Source Premier, Science Direct, and the grey literature and industry reports in order to find as many papers as possible concerning the beauty care industry. Some of the search terms that were used included. The issues under this area include beauty industry on environment, ethics of cosmetics, government regulation of beauty products and beauty technology consumer trends. The sources which have been found in the course of search were divided into groups and some of them

were excluded from the analysis as they have been included into other collections and, thus, can be considered as a repetition (Rethlefsen et al., 2021). Subsequently, the titles and the abstracts of the remaining studies were reviewed in order to eliminate those works which were irrelevant to the core issues at stake in the given field of study. It was crucial to complete this filtering step in order to focus on the articles that might be more related to the aims of the study (Kang, 2023).

Eligibility is where the remaining articles were then subjected to a more rigorous review of what remained was then subjected to a more rigorous review (Salameh et al., 2020). These were then filtered according to the focus of the studies and their applicability to the research questions which are: organizational challenges and technological trends within the industry. Excluded works, not meeting inclusion criteria concerning the subject, methodology or absence of data on the studied phenomenon. The last process involved the evaluation of each study based on several factors that include (Kang, 2020). The quality of the method used in the study and the relevance and richness of information used in the research the degree to which the study enriched the understanding of the issues within the field. This therefore implies that only research articles that complied with all of these factors were used in the review.

3.3. Justification for Findings

This systematic approach of conducting the literature review by adhering to the PRISMA guidelines helps in making the literature review more balanced and extensive, which forms the basis for the analysis provided in Chapter 4. This method enables one to examine the areas of strength, the areas of weakness, and the areas of potential development in the existing literature, which in turn justifies the arguments and findings made in the following sections of the thesis (Jayanetti et al., 2023).

The PRISMA approach is an effective guide while conducting this literature review as it is consistent with the guidelines of systematic reviewing. However, its effectiveness depends on the number and accessibility of the studies. Using the selected databases may limit the identification of some essential research articles, which are not indexed in the databases or are not written in English. However, it is important to keep in mind that the beauty industry is constantly evolving and growing very fast, therefore, there may be new shifts and legislation that have not been reviewed in the literature yet (Nantharath et al., 2016).

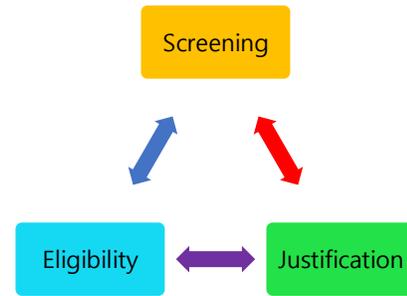


Figure 1: Methodology

4. Findings

4.1. Solution to Environmental Impact: Sustainable Production and Packaging

This problem puts pressure to the organizations in the beauty care industry to engage in environmentally sustainable manufacturing and green packaging. The utilization of renewable energy sources in manufacturing can help to reduce the level of greenhouse gases that are released during production. While water-saving technologies are instrumental in preserving scarce resources, they also assist in the minimization of costs (Aguar et al., 2022). On the same note, the use of environmentally friendly packaging is on the rise as well. The use of biodegradable or recyclable material can reduce significantly the use of plastic material. For instance, consumables allow the consumer to use the packaging more than once which in turn means that there are minimal packaging materials that are produced. In addition, the ‘take-back’ program enables consumers to dispose of the products through recycling to assist the industry adopt a circular economy (Uhrenholt et al., 2022). In addition to being environmentally beneficial, these measures can make the consumer look at the brands as socially responsible, thereby leading to better customer retention and market share (Jung et al., 2020).

4.2. Solution to Ethical Concerns: Enhancing Supply Chain Transparency

To reduce ethical dilemmas in the beauty care industry, there is a need to establish higher levels of transparency within the value chain. The technological advancement like the use of the blockchain for tracking all the transactions will go a long way in providing a record of all the transactions and ensure that every part of the product can be tracked from the point of origin to the shelf to prove that ethical sourcing was done (Feng et al., 2020). Companies should also try to get an ethical label, for example Fair Trade

or Cruelty-Free label to let the consumers know that the company is doing the right thing (Papaoikonomou et al., 2024). The third-party audit and the disclosure of the audit results can go a long way in enhancing the level of transparency and thus, the level of consumer confidence. This approach helps in guaranteeing that the supply chain practices are ethical, particularly the treatment of the workers and the impacts on the environment (Akther & Xu, 2020).

Also, engaging with the local communities and other stakeholders within sourcing locations improves the ethicality by enforcing and practicing appropriate labor rights and environmental conservation, and thus, makes the supply chain slightly more ethical and sustainable (Arrigo, 2020). By applying these strategies, organizations operating in the beauty sector can minimize threats resulting from ethical breaches and create a positive brand image which reflects the increasing consumer awareness of CSR (Fortunati et al., 2020).

4.3. Solution to Regulatory Challenges: Proactive Compliance and International Standardization

It is important for beauty care companies to be as compliant as possible and to work towards the international harmonization of the rules and regulations. There is a need for companies to employ dedicated regulatory personnel who will be in charge of researching the various international cosmetic regulations so that all their products can meet even the most stringent markets (Spacova et al., 2023). These teams are crucial in the early consideration of regulation aspects while developing products to avoid non-compliance and ensure that the market entry processes are less of a hurdle (Rehberg & Brem, 2024).

There is also rising demand for the beauty industry to come out and push for the standardization of regulations worldwide. This might lead to improvements in efficiency, decreased cost of implementing variety of standards and guarantee the same level of consumer protection globally (Chavhan, 2022). There are several approaches to the creation of these standardized rules to protect consumers without hindering innovation cooperation between companies and supervisory authorities (Findlay & Hoekman, 2021). Also, the opportunity to participate in the creation of regulation and decision-making enables companies to prepare for changes that may occur in the future and become leaders in terms of safety and compliance (Fentem et al., 2021). Taking a proactive approach to regulation not only strengthens the company's compliance but also strengthens the consumers' confidence in the reliability and safety of the brands.

4.4. Solution to Technological Challenges:

Personalization and Digital Engagement

The beauty care industry with its proliferation of technological advancements faces various challenges in satisfying consumers' needs; nonetheless, this paper has shown that personalization and digital engagement strategies can be powerful tools to increase brand loyalty among consumers (Unver, 2017). To fully optimize the use of AI, it is possible to personalize the range of skincare and makeup for each buyer depending on their data, including skin type, preferences, and external conditions, which can be beneficial for a consumer who is looking for a specific product. Also, AR applications like an outfit fit, enable consumers to visualize how products will appear on them, thus minimizing uncertainty and optimizing satisfaction (Babatunde et al., 2024). In addition, the adoption of these technologies in mobile applications and stores can lead to a seamless transition between the online and physical stores, which contributes to the concept of successful omnichannel (Sodiya et al., 2024). Big data analysis can also be used by companies to improve on aspects such as product positioning and promotion as it will help a firm to understand whether its strategies are in tandem with the market demands and preferences (Nantharath et al., 2023). Thus, by adopting such technological approaches, not only does the beauty brand enhance the audience's interaction but also obtains insights into how consumers behave, thus being agile to the market shifts, and ready to respond to consumers' changing preferences.

Table 1: Summary of the Results

Solutions	Main Statement
1. Solution to Environmental Impact: Sustainable Production and Packaging	The use of environmentally friendly packaging is on the rise as well. The use of biodegradable or recyclable material can reduce significantly the use of plastic material.
2. Solution to Ethical Concerns: Enhancing Supply Chain Transparency	Companies should also try to get an ethical label, for example Fair Trade or Cruelty-Free label to let the consumers know that the company is doing the right thing
3. Solution to Regulatory Challenges: Proactive	These teams are crucial in the early consideration of regulation aspects while developing products to avoid non-compliance and

Compliance and International Standardization	ensure that the market entry processes are less of a hurdle
4. Solution to Technological Challenges: Personalization and Digital Engagement	the adoption of these technologies in mobile applications and stores can lead to a seamless transition between the online and physical stores, which contributes to the concept of successful omnichannel.

5. Discussion

Based on the conclusions made in the findings’ section, this chapter examines the implications of the solutions to provide an insight into how the strategies can guide future practices in the beauty care industry. It also points out how these insights can be applied by industry practitioners to improve sector operational and strategic performance.

5.1. Green Production and Packaging

The shift to sustainable production and environmentally friendly packaging is a clear and promising endeavor for the beauty care industry to embrace and align with the growing market for sustainable products. Learnt lessons also include the need for industry practitioners to internalize sustainability as a key business imperative and not an optional add-on to product offerings and marketing campaigns. Some of the ways through which this can be done include sponsorship of renewable energy, usage of water efficient practices and coming up with environmentally friendly packaging products. Possible future developments could be the implementation of these practices throughout the supply chain to make it completely eco-friendly and designing products that could be used or disposed of in a way that they can be recycled in the supply chain hence the concept of circular economy.

5.2. Increasing the Level of Transparency of Supply Chains

Optimizing its chain of supply also addresses the ethical issues that are accruing in the supply chain as it acts as a way of creating trust among consumers as more and more consumers make decisions to purchase goods based on the corporate social responsibility. Producers / manufacturers should therefore concentrate on putting in place proper tracking mechanisms such as that provided by a blockchain that can track up to the point of sale. In the

same vein, the acquisition of ethical certifications and independent audits should be regular practices that ascertain adherence to ethical standards. Further work should be focused on the development of the common database and the implementation of ethical sourcing data exchange and the sharing of the best practices in the industry by promoting the humane and eco-friendly production within the apparel industry.

5.3. Proactive Compliance and International Standardization

This clearly indicates that regulatory management and work towards standardization are important in ensuring capacity to navigate through the regulatory environment efficiently. For practitioners, it is imperative to maintain a level of awareness and involvement in the ongoing processes of regulatory evolution and updates. Overall, this approach is useful in preventing or reducing disruption when change occurs in the regulations and ensuring market access. The movement towards international regulatory harmonization could turn out to be a blessing in disguise since it will reduce the confusion that comes with having to adhere to different regulations and standards across the world. The practitioners should come out and support these standards and get involved in international forums so as to push for these standards in order to ease the growing concerns of doing business across the globe.

5.4. Personalization and Digital Engagement

By using AI and AR technologies in the implementation process, the consumer gets to enjoy personalized services, which is something they consider very important in today’s society. The consumer touchpoints in this context refer to all the interfaces that a consumer is likely to encounter when shopping from a store either online or physical store and these include;

The next steps could be in leveraging on Artificial Intelligence and Machine learning to forecast consumers’ behaviors and tendencies, so that organizations are better placed to understand the market and respond to its needs accordingly. Moreover, as data privacy persists to receive much attention, it will be vital for companies to uphold consumer satisfaction by providing clarity on data usage and protection.

References

- Amberg, N., & Fogarassy, C. (2019). Green consumer behavior in the cosmetics market. *Resources*, 8(3), 137.
- Aguiar, J. B., Martins, A. M., Almeida, C., Ribeiro, H. M., & Marto,

- J. (2022). Water sustainability: A waterless life cycle for cosmetic products. *Sustainable Production and Consumption*, 32, 35-51.
- Akther, T., & Xu, F. (2020). Existence of the audit expectation gap and its impact on stakeholders' confidence: The moderating role of the financial reporting council. *International Journal of Financial Studies*, 8(1), 4.
- Arrigo, E. (2020). Global sourcing in fast fashion retailers: Sourcing locations and sustainability considerations. *Sustainability*, 12(2), 508.
- Babatunde, S. O., Odejide, O. A., Edunjobi, T. E., & Ogundipe, D. O. (2024). The role of AI in marketing personalization: A theoretical exploration of consumer engagement strategies. *International Journal of Management & Entrepreneurship Research*, 6(3), 936-949.
- Chavhan, S. (2022). Shift to 6G: Exploration on trends, vision, requirements, technologies, research, and standardization efforts. *Sustainable Energy Technologies and Assessments*, 54, 102666.
- De, S. K., Kawdia, P., Gupta, D., & Pragya, N. (2023). Packaging plastic waste management in the cosmetic industry. *Management of Environmental Quality: An International Journal*, 34(3), 820-842.
- Fentem, J., Malcomber, I., Maxwell, G., & Westmoreland, C. (2021). Upholding the EU's commitment to 'animal testing as a last resort' Under REACH requires a paradigm shift in how we assess chemical safety to close the gap between regulatory testing and modern safety science. *Alternatives to Laboratory Animals*, 49(4), 122-132.
- Feng, H., Wang, X., Duan, Y., Zhang, J., & Zhang, X. (2020). Applying blockchain technology to improve agri-food traceability: A review of development methods, benefits and challenges. *Journal of cleaner production*, 260, 121031.
- Ferreira, M., Matos, A., Couras, A., Marto, J., & Ribeiro, H. (2022). Overview of cosmetic regulatory frameworks around the world. *Cosmetics*, 9(4), 72.
- Findlay, C., & Hoekman, B. (2021). Value chain approaches to reducing policy spillovers on international business. *Journal of International Business Policy*, 4(3), 390-409.
- Fortunati, S., Martiniello, L., & Morea, D. (2020). The strategic role of the corporate social responsibility and circular economy in the cosmetic industry. *Sustainability*, 12(12), 5120.
- Hossain, M. J., Ahmed, S. I., Monir, M. U., Salman, H. M., Techato, K., & Chowdhury, S. (2023). *Natural resources overusing in oil, gas, and petrochemical industries and challenges*. In Crises in Oil, Gas and Petrochemical Industries (pp. 393-418).
- Jayanetti, J., Perera, B., Waidyasekara, K., & Siriwardena, M. (2023). Critical Analysis of Lean Construction Maturity Models: A Systematic Literature Review. *Buildings*, 13(6), 1508.
- Jung, J., Kim, S. J., & Kim, K. H. (2020). Sustainable marketing activities of traditional fashion market and brand loyalty. *Journal of Business Research*, 120, 294-301.
- Kang, E. (2023). Literature Evaluation: The Focus on the Difference between Job-based Pay and Skill-based Pay Scheme. *The Journal of Industrial Distribution & Business*, 14(7), 1-7.
- Kang, E. (2020). The relationship between reinforcement of employee's customer-centric behavior and employee motivation factors. *Advances in Social Sciences Research Journal*, 7(7), 338-347.
- Kazmi, S. H. A., Ahmed, R. R., Soomro, K. A., Hashem E, A. R., Akhtar, H., & Parmar, V. (2021). Role of augmented reality in changing consumer behavior and decision making: Case of Pakistan. *Sustainability*, 13(24), 14064.
- Laham, M. (2020). *Made up: How the beauty industry manipulates consumers, preys on women's insecurities, and promotes unattainable beauty standards*. Rowman & Littlefield Publishers.
- Nanda, A., Xu, Y., & Zhang, F. (2021). How would the COVID-19 pandemic reshape retail real estate and high streets through acceleration of E-commerce and digitalization?. *Journal of Urban Management*, 10(2), 110-124.
- Nantharath, P., Kang, E. G., & Hwang, H. J. (2016). Investment Analysis in the Hydroelectric Power Sector of the Lao People's Democratic Republic (Lao PDR). *Journal of Distribution Science*, 14(8), 5-8.
- Nantharath, P., Marwa, S., Nguyen, L., & Kang, E. (2023). Sustainable Development And Financial Inclusion In Sub-Saharan Africa: Empirical Evidence From Panel Vector Error Correction Model (Vecm). *Journal of Namibian Studies: History Politics Culture*, 36, 846-868.
- Oláh, J., Kriszán, E., Kiss, A., Lakner, Z., & Popp, J. (2020). PRISMA statement for reporting literature searches in systematic reviews of the bioethanol sector. *Energies*, 13(9), 2323.
- Papaoikonomou, E., Ginieis, M., & Alarcón, A. A. (2024). The problematics of being an ethical consumer in the marketplace: Unpacking the concept of ethical consumer literacy. *Journal of Public Policy & Marketing*, 43(2), 133-150.
- Rehberg, L., & Brem, A. (2024). Industrial prototyping in the German automotive industry: bridging the gap between physical and virtual prototypes. *Journal of Engineering and Technology Management*, 71, 101798.
- Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., & Koffel, J. B. (2021). PRISMA-S: an extension to the PRISMA statement for reporting literature searches in systematic reviews. *Systematic reviews*, 10, 1-19.
- Sadiq, M., Adil, M., & Paul, J. (2021). An innovation resistance theory perspective on purchase of eco-friendly cosmetics. *Journal of Retailing and Consumer Services*, 59, 102369.
- Sima, V., Gheorghe, I. G., Subić, J., & Nancu, D. (2020). Influences of the industry 4.0 revolution on the human capital development and consumer behavior: A systematic review. *Sustainability*, 12(10), 4035.
- Sodiya, E. O., Amoo, O. O., Umoga, U. J., & Atadoga, A. (2024). AI-driven personalization in web content delivery: A comparative study of user engagement in the USA and the UK. *World Journal of Advanced Research and Reviews*, 21(2), 887-902.
- Spacova, I., Binda, S., Ter Haar, J. A., Henoud, S., Legrain-Raspaud, S., Dekker, J., ... & Ouwehand, A. C. (2023). Comparing technology and regulatory landscape of probiotics as food, dietary supplements and live biotherapeutics. *Frontiers in Microbiology*, 14, 1272754.
- Taylor, K., & Alvarez, L. R. (2020). Regulatory drivers in the last 20 years towards the use of in silico techniques as replacements to animal testing for cosmetic-related substances. *Computational Toxicology*, 13, 100112.

- Uhrenholt, J. N., Kristensen, J. H., Rincón, M. C., Jensen, S. F., & Waehrens, B. V. (2022). Circular economy: Factors affecting the financial performance of product take-back systems. *Journal of Cleaner Production*, 335, 130319.
- Unver, H. A. (2017). Digital challenges to democracy: Politics of automation, attention, and engagement. *Journal of International Affairs*, 71(1), 127-146.