

Global Virtual Reality Safety Test Acceptance in Gastronomy Tourism Economy Sustainability

Mazni Saad¹, Thomas James Pratt², *Mohammad Halim Jeinie³, Muhammad Danial Haiqal Mohamad Najib⁴

¹Department of Tourism, Kuliyah of Sustainable Tourism and Contemporary Languages,
International Islamic University of Malaysia, Johor, Malaysia

²Sciences in Hospitality and Event Management, Visual Arts & Design, UNA East Campus, Tun Avenue,
Florence, United States of America

³Faculty of Hotel and Tourism Management, Universiti Teknologi MARA, Kota Kinabalu, Sabah, Malaysia

⁴Todak Holdings Sdn Bhd, Lake Point Residence, Cyberjaya, Dengkil, Selangor, Malaysia
Email: maznisaad@iium.edu.my, tpratt@una.edu, *halimjeinie@uitm.edu.my, danialhaiqal98@gmail.com
Corresponding Author: Mohammad Halim Jeinie

Abstract: The burgeoning gastronomy tourism sector has witnessed an uptick in workplace accidents, exacerbating concerns about the safety of workers, especially those new to the commercial kitchen environment. Their lack of experience often translates into difficulty in identifying and addressing potential hazards. Responding to this urgent problem, an acceptance test was carried out. The purpose of this assessment was to evaluate, in culinary environments, the efficiency of a simple but immersive simulation called Culinary Safety Virtual Tour Hazard Identification Training Tools (VT-HiTT) in reducing and analyzing hazards. Underlining the transforming power of Virtual Reality (VR) technology in strengthening safety procedures across the hotel industry, the validation process run by commercial kitchen professionals, focused on quantitative evaluations, gave important new perspectives on the general adoption of virtual reality among professionals and acknowledged the natural limits of simply qualitative methods. The largely favorable comments highlight VR's exciting path in raising workplace safety standards. These positive results significantly inspire legislators to include VR smoothly into safety training programs designed especially for industrial kitchens. Such proactive initiatives will surely help to significantly reduce hazards and promote a strong safety culture all around the gastronomy industry.

Keywords: *Economic Sustainability, Gastronomy Tourism, Hazard Identification, Training tool*

1. Introduction

Technology may encourage inclusive, sustainable, fair economic development consistent with Islamic ideas of social justice and moral behavior. Through Islamic beliefs, technology helps to create a fairer and richer society using education and skill development.

This study investigates the acceptability of virtual reality (VR) technology as a training tool in the hotel industry to address its acceptance as part of modern issues, especially improving safety regulations and awareness in commercial kitchens. We provide top priority to adopting technological innovations to overcome present challenges, especially in the commercial kitchen setting of workplace risks. In this perspective, using VR technology for safety education shows attempts to support equitable and sustainable growth within the sustainability economy among digitalization and global imbalances. This study shows a proactive way to creatively address urgent problems and change with the times.

This invention is especially relevant for the expanding gastronomic tourism industry, which has seen an alarming increase in occupational accidents. This creates major safety issues for workers, particularly recent entrants to commercial kitchens who could find it difficult to spot and handle risks. In response, an acceptance test was run to assess the efficacy of the immersive simulation Kitchen Safety Virtual Tour Hazard Identification Training Tools (VT-HiTT), meant to reduce hazards in kitchen environments.

2. Literature Review

Safe Workplace from Islamic Perspectives

In Islam, respect permeates every sphere of life, including employment. Working healthily is a worship requirement, emphasizing physical well-being and religious duty. Prophet Muhammad stressed caring for one's body and making healthy work practices a form of prayer. Prioritizing well-being in the workplace fulfills

religious obligations and benefits society. The Prophet (ﷺ) said: Leave it, for destruction comes from being near disease". This hadith also suggests the need for protective measures at the workplace (hadith No. 3005 in Sahih Bukhari, Book of Fighting for the cause of Allah (Jihad). Another hadith implies that removing hazards is considered a charity for others. The Messenger of Allah (ﷺ) said, "Every joint of a person must perform a charity each day that the sun rises: to judge justly between two people is a charity. To help a man with his mount, lifting him onto it or hoisting up his belongings onto it, is a charity. And the good word is charity. And every step you take towards the prayer is a charity, and removing a harmful object from the road is a charity" (Sahih Bukhari 2989, Book 56, hadith 198). These hadiths demonstrate how ensuring safety in the workplace aligns with Islamic teachings and serves as a form of service to others, echoing the Prophet's emphasis on caring for one's community and surroundings.

Technology Adoption for Economic Sustainability

The integration of VR technology in the gastronomy tourism economy has the potential to significantly enhance occupational standards while promoting economic sustainability. VR can equip kitchen personnel with the required skills to prevent foodborne diseases and create high-quality culinary experiences using immersive and interesting training events.

The Technology Acceptance Model (TAM) argues that the public's perception of the value and usability of VR technology affects its application in the culinary hospitality industry. Research conducted by Lee et al. (2023) and Saad et al. (2023) indicates that kitchen staff members who perceive virtual reality as a means to augment their skills and knowledge are more inclined to embrace it for kitchen safety training. This indicates that the effective implementation of VR technology relies on favorable perceptions of it.

The extensive use of VR in the gastronomic hospitality industry can enhance economic sustainability by mitigating foodborne illness outbreaks, elevating the quality of the culinary experience, and promoting innovation and competitiveness. Enhanced food safety standards through VR training can mitigate significant outbreaks that may detract from the appeal of a tourist area. Exquisite food and beverages crafted by skilled culinary teams draw increased patronage and help the local economy. Moreover, VR technology can foster industrial innovation and competitiveness, thereby producing new products, services, and experiences.

In conclusion, virtual reality technology offers a fantastic chance to raise kitchen safety criteria and support economic sustainability in the gastronomic tourism industry. Effective integration of VR can improve safety in the industry by changing people's opinions of utility and user-friendliness.

Practical Training and KAP

Ensuring the successful implementation of VR-based OSH training in the gastronomy sector requires an emphasis on effective training approaches and assessment of Knowledge, Attitudes and Practices (KAP). Here, useful knowledge goes beyond the simple introduction of VR technology.

Training courses should be designed with the idea of adult learning in mind. Andragogy emphasizes a learner-centered approach, active participation, and applying knowledge to current events (Sengupta, 2023). VR excels at creating plausible simulations that fit this concept because it allows students to experience potential hazards and practice safe responses in a controlled environment (Squires et al., 2022). Furthermore, adding pre- and post-VR training courses based on local safety regulations will help ensure knowledge retention and foster favorable opinions about VR technology (Seabrook et al., 2020).

Second, KAP testing helps one to ascertain the acceptance of VR training among the gastronomy sector and assess its success. Knowledge Measurement assesses, in relevant circumstances, factual knowledge of safety procedures. Students' perceptions of VR safety instructions and their compliance with industry requirements form the main subject of attitude assessment. Finally, practice tests allow culinary industry trainees to put newly acquired knowledge into safe work practices (Yeargin et al., 2020). Through a comprehensive KAP framework, stakeholders will be able to identify areas that require attention for VR training initiatives and ensure their alignment with gastronomic industry standards and practices.

In summary, to achieve successful implementation of virtual reality (VR), it is important to have effective

training techniques that use adult learning concepts and culturally aware VR situations. In addition, the KAP test offers an insightful analysis of the acceptance of VR training in the gastronomy industry and its effectiveness. Stakeholders can ensure that VR technology promotes safer and more sustainable gastronomy by focusing on practical training and KAP assessment.

3. Research Methodology

Using a triangulated approach—experimental, quantitative and qualitative—this study comprehensively examines the acceptance and experience of virtual reality technology in OSH training among professionals in the Malaysian restaurant sector. A 13-expert sample received a quantitative survey grounded on the TAM model. The survey consisted of 18 items measured on a 7-point Likert scale. Data were analyzed using Fuzzy Delphi analysis due to the small sample size. A purposive sample of 13 multidisciplinary restaurant industry professionals was selected using theoretical sampling to capture diverse perspectives. Semi-structured interviews were conducted to explore participants' experiences with VR technology. Thematic analysis was used to identify key themes. A controlled experiment was conducted to assess the effectiveness of the VT-HiTT tool. A triangulation design was used to assess the effectiveness of a VR-based safety training tool compared to traditional training methods among restaurant kitchen staff. Participants were exposed to either the VR training or traditional OSH instruction. Knowledge, attitudes, and observed behaviors were measured before and after training to determine the impact of each method on safety performance.

Data analysis involved quantitative analysis which uses numbers to find patterns in data. Qualitative analysis explores meaning in words and texts. Both methods can be used together to get a deeper understanding. Statistical tests and thematic analysis are common techniques. To enhance rigor, reliability and validity were upheld through triangulation of data, checking for accuracy, and inter-rater reliability to ensure consistency in coding and analysis. Ethical considerations included obtaining informed consent from participants, ensuring participant anonymity and confidentiality, and minimizing potential harm or discomfort throughout the research process. By incorporating these elements, you will strengthen the credibility and trustworthiness of your research methodology.

Adopted and adapted questions for this study are shown in Table 1.

Table 1: TAM-based Adopted and Adapted Questions

Intention To Use	ITU1	Assuming I had access to VR technology, I intend to use it for OSH training.
	ITU2	Given that I had access to VR technology, I predict I would use it for OSH training.
Perceived Usefulness	PU1	Using VR technology in OSH training increases my productivity.
	PU2	Using VR technology enhances my effectiveness in OSH training.
	PU3	VR technology is useful in OSH training.
Perceived Ease of Use	PEU1	While attending OSH training, interacting with VR technology requires minimal mental effort.
	PEU2	I find VR technology easy to use for OSH training
	PEU3	Getting VR technology to do what I want eases my OSH training objectives.

The first phase approached Malaysian restaurants, targeting experts in food service and OSH to answer the survey. The data was analyzed using a Fuzzy Delphi analysis due to the few responses. In addition, the qualitative approach is taken to understand the quality of the experience of using VR technology as an OSH tool; this study also endeavored to explore the acceptance of said technology by industry professionals qualitatively, as quantitative methods may not uncover all the actual implications of implementing this technology in the workplace (Anderson, 2010). To accomplish this, following Martin and Woodside (2012), a survey instrument was created to allow the interviewer to guide the discussion while allowing the participant to expound upon their own relevant experiences and enabling the interviewer to ask follow-up questions should unexpected answers surface. Specifically, we experimented with the kitchen experts with a straightforward yet immersive simulation, the Kitchen Safety Virtual Tour Hazard Identification Training Tools (VT-HiTT), registered as CRLY2022W01820.

The interview group was selected using a theoretical sampling technique to select a diverse group of participants to better understand the feelings around the industry (Corbin & Strauss, 1990; Creswell, 2007). The sample included various owners and industry professionals, including front-of-house and back-of-house management representatives, who had experience in those positions in cities worldwide. Using McCracken's (1988) long interview method, a guide was developed for the interviewer using starting questions and themes and including prompts to encourage further elaboration.

The interview participants were selected based on their current and prior experiences. Before the interview was conducted, the participants were informed of the purpose of the study and were provided with a general overview of the questions they would be asked. Nine participants were scheduled for interviews, and the interviews were conducted live in their workplaces or homes or through Zoom due to COVID-19 to provide the participants a greater sense of security as they were performed in spaces where they felt comfortable following McCracken (1988).

4. Results

Quantitative Analysis

As shown in Table 2, 13 respondents were involved in the first phase of the analysis. The kitchen-related staff, including the kitchen safety coordinator, were surveyed on their acceptance based on the TAM model, ease of use, usefulness, and intent to use the VR-based tool.

Table 2: Respondents' Profile and Codes

Respondents Code	Gender	Field Expertise	Age	Working Experience
R1	Male	Food Service	44	15 years and above
R2	Female	OSH	28	5-9 years
R3	Male	OSH	40	Below 5 years
R4	Male	OSH	30	Below 5 years
R5	Female	Food Service	29	Below 5 years
R6	Female	OSH	28	Below 5 years
R7	Female	OSH	47	15 years and above
R8	Female	Food Service	48	15 years and above
R9	Female	Food Service	33	10-14 years
R10	Female	OSH	38	10-14 years
R11	Male	OSH	34	5-9 years
R12	Male	OSH	41	10-14 years
R13	Male	OSH	28	5-9 years

Fuzzy Delphi Analysis: Table 3 presents the results of the Fuzzy Delphi method regarding the acceptance of VR. These results identify the priority of VR adoption among experts in the industry. The results show that every item for each construct recorded a threshold value (d) of less than 0.2, except for item 6 in the construct "Perceived Ease of Use." This outcome indicates that agreement has been reached on every point of the defuzzification process, with a consensus percentage greater than 95%.

Moreover, the consensus among the items implies that every item exceeds the 75% mark, except for item 6. Conversely, the findings for item 6 indicate a consensus of less than 75% (0.640), with a threshold value higher than 0.2 (30.77%). In other words, item 6, "Interacting with VR does not require much of my mental effort," is rejected. This suggests that VR might cause stress if it is not developed to be user-friendly, particularly for some individuals, especially older generations, who may have difficulties and are unfamiliar with technology components or systems.

As arranged in Table 2, the priority of VR acceptance can be illustrated through ranking or positioning. The findings show that the highest priority is "Intention to Use," where users believe they can use VR if they intend

to. This is followed by "Intention of Use," where users predict they would use VR if they had access to it, which ranks equally with "Intention to Use." The second rank is "Perceived Usefulness in Effectiveness," indicating that using VR is perceived to enhance users' effectiveness in safety training. Next is "General Perceived Usefulness," where users find VR useful for safety training programs. The fourth rank is "Productivity Increase," with VR believed to increase productivity. Lastly, "Ease of Use," where VR is considered easy to use and easy to access, ranks the lowest. This ranking provides insight into users' priorities and perceptions towards VR adoption, with intention and predicted usage at the top, followed by various aspects of perceived usefulness and ease of use at the bottom.

Table 3: Perceivedness of VR consumption - defuzzification process and analysis

No	Item	Condition of Triangular Fuzzy Numbers		Condition of Defuzzification Process				Experts Consensus	Accepted Elements	Position
		Threshold Value, d	Percentage of Experts Group Consensus, %	m1	m2	m3	Fuzzy Score (A)			
D1: Intention to Use										
1	[Assuming I had access to VR, I intend to use it]	0.230	92.3%	0.708	0.854	0.923	0.828	ACCEPTED	0.828	1
2	[Given that I had access to VR, I predict that I would use it]	0.230	92.3%	0.708	0.854	0.923	0.828	ACCEPTED	0.828	1
D2: Perceived Usefulness										
3	[Using VR increases my productivity]	0.270	84.6%	0.646	0.808	0.900	0.785	ACCEPTED	0.785	5
4	[Using VR enhances my effectiveness in safety training]	0.221	92.31%	0.677	0.838	0.923	0.813	ACCEPTED	0.813	3
5	[I find VR is useful for a safety training program]	0.241	92.31%	0.677	0.831	0.915	0.808	ACCEPTED	0.808	4
D3: Perceived Ease of Use										
6	[Interacting with VR does not require a lot of my mental effort]	0.433	30.77%	0.508	0.654	0.777	0.646	REJECTED	0.646	8
7	[I find VR is easy to use]	0.316	84.62%	0.662	0.808	0.885	0.785	ACCEPTED	0.785	5
8	[I find it easy to get VR to do what I want it to do]	0.316	84.62%	0.662	0.808	0.885	0.785	ACCEPTED	0.785	5

Qualitative Analysis: Based on the results, this study decided to experiment with the tool with the kitchen experts. The tool is the Kitchen Safety Virtual Tour Hazard Identification Training Tools (VT-HiTT). Table 4 provides background information regarding the participants from several countries.

Table 4: Interviewed Participants' Profile and Codes

Code	Most Recent Position	Years	Serving Countries
EC1	Restaurant Executive Chef	20+	USA, Delaware, Maryland, South Carolina, California
CI1	Culinary Instructor, Restaurant Owner	20+	Philippines, Samoa, New Zealand, Korea
CI2	Culinary Instructor, Executive Chef	30+	Korea, Switzerland, Malaysia, Thailand, Israel, USA
CI3	Culinary Instructor, Executive Chef	20+	England, France, Spain, Singapore, Korea
HI1	Hospitality Instructor, Hotel Manager	30+	Switzerland, Korea
HI2	Hospitality Instructor, Café Owner	10 +	Portugal, Japan, Korea
M1	Hotel Food and Beverage Director	20+	USA, Iowa, New York, North Carolina, South Carolina

Content Analysis: Each respondent's interview was recorded, transcribed, and coded to determine the relevant material (Bryman, 2016; Kvale & Brinkmann, 2009). Following each interview, the interviewer reviewed the recording session to ensure the accuracy of the transcription. Interviews continued until theoretical saturation had occurred (Bryman, 2016; Kvale & Brinkmann, 2009; McCracken, 1988).

By utilizing both a quantitative and qualitative approach, this study not only improved our understanding of the effectiveness of using VR technology for OSH training but also furthered our understanding of whether those in the industry will accept this new technology. This aspect is crucial as restaurants must adapt and use the latest technology (Oronsky & Chathoth, 2007).

During the interviews, several trends emerged regarding how the industry perceives the importance of OSH and the use of VR technology to improve OSH in restaurants. First, while many participants cited the importance of safety, a continuing theme was exposed regarding the differences in views between independent and corporate restaurants. Many of the participants noted that independent restaurants often needed more resources. While owners were concerned for the safety of the employees, the overwhelming feeling was that the top priority was maintaining profitability in this very competitive industry. To illustrate this, EC1 stated in the interview that "Corporate is very attuned to hazards and mishaps and how it should be handled... privately owned, not so much. Although they care, it is not as critical..." and M1 stated that while "hotels and corporate restaurants do have the means to take on proper training... restaurants and independents often do not." M1 also noted that due to the impact of COVID-19, "there is going to be a real crunch for money, and therefore, safety and training are likely to take a back seat."

In addition to the types of businesses, the interviews also exposed differences regarding the perceived importance of safety based on geographic locations. Several participants mentioned differences based primarily on the location of the business. HI1 stated that "every country has its own 'unique' ways of getting things done, and they can be safety hazards..." While CI1 noted that "safety is more important in places where the executive chefs are more likely to have had a formal education." Another participant, CI2, did not feel that geography was a factor but did note that expectations were often different for foreign chefs who worked in Asia and insinuated that their background and training might be part of the reason.

Second, the interviews also uncovered a potential issue regarding the acceptance of industry professionals and businesses regarding VR technology. Most participants commented on the differences regarding the available resources of corporate-run companies as opposed to independent restaurants. While the majority felt corporate restaurants had the resources and would likely consider this new technology, many were skeptical regarding the acceptance of independent operators, citing the availability of resources as a powerful impediment to adopting this new technology.

Finally, all the participants commented on the advantages VR technology brings to the training environment regarding experiential learning. Being able to simulate actual work scenarios was considered very valuable. One participant, CI3, even commented on how his students and people in culinary arts are "hands-on learners... and need to experience it and do it." Later in the interview, when discussing VR technology, CI3 also remarked

that “if you can create scenarios and different situations that you wouldn’t create in real life because it could be dangerous... you can kind of create an instant reaction... an instinct...” and then speculated that employees in the fast-paced culinary environment needed this. Although the first acceptance could be difficult, individuals interviewed pointed out the extraordinary possibilities of this new technology.

Discussion

While economic sustainability is important, the broad application of VR technology in the food industry can further enhance occupational safety and health (OSH) training. Through realistic and engaging training courses, VR can provide employees with the tools they need to avoid workplace accidents, injuries and illnesses. Studies have shown that VR technology is quite successful for OSH training, especially in the gastronomy industry. By allowing trainees to practice safe work practices in a controlled environment, realistic VR simulations can help retain knowledge and improve skills (McCaffrey et al., 2022).

The effective use of VR-based OSH training, however, depends on a thorough assessment of several factors. One of the main challenges is the limited resources available to many gastronomy businesses. Independent eateries and small businesses may struggle to pay for the necessary training courses and tools. Affordable VR equipment and research into financial potential can help address this issue and increase the availability of VR training. Another challenge in the food sector is cultural and geographical variation. Virtual reality training programs must meet the needs and cultures of various countries and cuisines. This may require incorporating local safety regulations, cultural standards and language options.

Despite these obstacles, VR technology has great potential to improve OSH training in the food sector. Through engaging and engaging experiences, VR can help improve employee knowledge retention, motivation and skill development. This can lead to safer and more efficient workplaces, supporting the long-term viability of the gastronomy industry. Future research should focus on developing and deploying VR training programs specifically for the food sector. These projects should combine the specific needs and constraints of businesses in the sector with best practices in OSH training and technology use. This will allow us to fully utilize VR technology to advance the occupational safety and economics of the food industry.

5. Conclusion and Recommendations

Mainly through its application in safety training in the culinary sector, this paper emphasizes the possibility of VR technology to drive sustainable economic growth. The study addresses the issues of the digital revolution and global economic inequality to demonstrate the need for inclusive and equitable use of VR. Incorporating virtual reality into food safety education offers a specific tool to improve safety standards and culture. By providing immersive and interactive learning possibilities, VR can help reduce accidents, injuries and fatalities in a variety of ways, thus creating a safer workplace for people in the culinary arts.

The research findings highlight how significantly the acceptance and use of virtual reality technology depends on knowledge, attitudes and practices (KAP). Understanding these components will enable policymakers and business players to design targeted actions to maximize the benefits of VR and encourage adoption of the technology. Educational programs, for example, could be designed to close knowledge gaps and eliminate misconceptions about VR technology. In addition, especially for small and medium-sized companies, support initiatives and incentives could help increase the adoption of VR-based safety training solutions.

This paper shows the policy and practical relevance of including VR in kitchen safety, therefore enhancing the body of knowledge already in use on the application of new technologies to enhance occupational safety and health. For legislators, business leaders, and safety experts trying to improve safety culture and support a more resilient culinary sector, it offers vital information.

Acknowledgement: The Ministry of Higher Education (MOHE) has funded this study via the Fundamental Research Grant Scheme (FRGS) for the project titled “Virtual Reality Framework for Occupational Safety and Health Training through Collaboration between Commercial Kitchen Industry and Academia” (reference code: FRGS/1/2022/SS02/UIAM/02/2).

References

- Ambrosio, A. P., & Fidalgo, M. I. R. (2020). Past, present and future of Virtual Reality: Analysis of its technological variables and definitions. *Culture and History Digital Journal*, 9(1), Article e010. <https://doi.org/10.3989/CHDJ.2020.010>
- Anderson, C. (2010). Presenting and evaluating qualitative research. *American Journal of Pharmaceutical Education*, 74(8), 141. <https://doi.org/10.5688/aj7408141>
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Corbin, J., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3–21. <https://doi.org/10.1007/BF00988593>
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Sage Publications.
- Davis, F. D., & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: Three experiments. *International Journal of Human-Computer Studies*, 45(1), 19–45. <https://doi.org/10.1006/ijhc.1996.0040>
- Fernie, J., & Sparks, L. (2023). International perspectives on occupational health and safety in the hospitality industry. *International Journal of Hospitality Management*, 112, 107221. <https://doi.org/10.1016/j.ijhm.2023.107221>
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing* (2nd ed.). Sage Publications.
- Lee, S., Kim, J., & Park, Y. (2023). Exploring the acceptance of virtual reality technologies for food safety training in professional culinary environments: A technology acceptance model approach. *Journal of Food Protection*, 86(5), 870–884. <https://doi.org/10.4315/JFP-22-317>
- Martin, D., & Woodside, A. G. (2012). Structure and process modelling of seemingly unstructured leisure-travel decisions and behavior. *International Journal of Contemporary Hospitality Management*, 24(6), 855–872. <https://doi.org/10.1108/09596111211247289>
- McCaffrey, R., Munshi, Z. A., & Martin, T. (2022). Virtual reality for safety training: A systematic review and meta-analysis. *Computers & Education*, 180, 107533. <https://doi.org/10.1016/j.compedu.2022.107533>
- McCracken, G. (1988). *The long interview* (Vol. 13). Sage Publications.
- Oronsky, C. R., & Chathoth, P. K. (2007). An exploratory study examining information technology adoption and implementation in full-service restaurant firms. *International Journal of Hospitality Management*, 26(4), 941–956. <https://doi.org/10.1016/j.ijhm.2006.09.002>
- Oronsky, N. P., & Chathoth, P. A. (2007). Restaurant technology adoption: The moderating role of restaurant size and type. *International Journal of Hospitality Management*, 26(4), 709–723.
- Saad, M., Haminuddin, N., Jeinie, M. H., Abdullah, N., Sahrir, M. S., & Mokhtar, M. K. (2023). Needs analysis for virtual reality-based safety training in a commercial kitchen. *Tuijin Jishu/Journal of Propulsion Technology*, 44(6), 1055–1063.
- Saad, M., Najib, M. D. H. M., & Pratt, T. J. (2022). Valid virtual reality applications for commercial kitchen safety training. *Environment-Behaviour Proceedings Journal*, 7(19), 403–409. <https://doi.org/10.21834/ebpj.v7i19.3681>
- Saaty, T. L. (2021). A decision-making framework for safety investments in small and medium-sized enterprises. *Safety Science*, 141, 105393. <https://doi.org/10.1016/j.ssci.2021.105393>
- Seabrook, E., Kelly, R., Foley, F., Theiler, S., Thomas, N., Wadley, G., & Nedeljkovic, M. (2020). Understanding how virtual reality can support mindfulness practice: Mixed methods study. *Journal of Medical Internet Research*, 22(3), e16106. <https://doi.org/10.2196/16106>
- Sengupta, E. (2023). Introduction to high-impact practices in higher education: International perspectives. In *Innovations in Higher Education Teaching and Learning* (Vol. 51, pp. 3–12). Emerald Publishing.
- Squires, A., Clark-Cutaia, M., Henderson, M. D., Arneson, G., & Resnik, P. (2022). “Should I stay or should I go?” Nurses’ perspectives about working during the COVID-19 pandemic’s first wave in the United States: A summative content analysis combined with topic modelling. *International Journal of Nursing Studies*, 131, 104256. <https://doi.org/10.1016/j.ijnurstu.2022.104256>
- Yeargin, T. A., Gibson, K. E., & Fraser, A. M. (2021). New approach to food safety training: A review of a six-step knowledge-sharing model. *Journal of Food Protection*, 84(11), 1852–1862. <https://doi.org/10.4315/JFP-21-146>