A Buddhist-Spirituality Base for Artificial Intelligence Applications through Consciousness Subjects

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ABSTRACT

Establishing an easily comprehensible link between spirituality and technology is crucial for the professions to engage in their roles to embrace the fast-emerging industry 4.0 or 5.0 context. This study uses consciousness (or mindfulness) as an entry point, which resembles the data acquisition and knowing function in artificial intelligence (AI) and internet-of-things (IoT). Accordingly, this study has the academic and science-based supports of the stimulus-organism-response (S-O-R) theory of behaviors and Karl Popper's three-worlds logics of sciences, contributing to both disciplines "spirituality" and "artificial intelligence." In order to illustrate the consciousness subjects and human-brain-like activations and functioning of feeling and perceptions in sensory stimulations, thus leading to activity formation, as according to the Buddhist Cannons, this study surveys consumer perceptions towards upscale restaurants experienced in Chiang Mai, Thailand. The results generally support the conceptualization and thus provide a spiritual bridge to professions engaging in AI technologies.

Keywords
Spirituality, Consciousness, Mindfulness, Buddhism, AI, IoT, Restaurant.

INTRODUCTION

There are different natures of understanding to the term "spirituality." Steinhauser et al. (2017) note that spirituality transcends theistic (belief in a supreme being) and religion (including shared customs and practices) and should be about one in search for the "significant, sacred" that which holds ultimate meaning or purpose. One should explore the existential domain of spirituality – that is, the search for meaning and purpose (Steinhauser et al., 2017: 429). If one is to develop and apply spirituality, the term "spirituality" should not be ineffable, and there are measurable patterns associated with spirituality. For instance, Dent, Higgins, and Wharff (2005) present that spirituality is "transformational, moral, and ethical" (p. 629), and thus, observable patterns of spirituality include "honesty, integrity, goodness, knowledge, wholeness, congruency, interconnectedness, teamwork" (p. 629), which shares the characteristics of virtuality that provides the flexibility to deal with the complexity of situations (Oswald and Mascarenhas, 2019).

Spirituality has rapidly gained popularity, for spirituality is common to human beings (Koening, 2018). From the literature review, spirituality closely relates to science, philosophy, religion, practices, and applications, as shown in Fig. 1. To sum up, spirituality unites and makes harmony the mind, body (i.e., practices, behaviors), and heart. Noted in Al-Shura (2020: 189), spirituality is an essential part of well-being, and well-being is the balance between the body, mind, and spirit. While religion can be divisive (Crisp, 2018), spirituality is native and inborn in human beings (Oswald and Mascarenhas, 2018: 49). Though spirituality is inborn, native, human needs to discover and reveal its potentiality and nature through dharma practices, for instance, the Four Noble Truths in Buddhism: 1) the noble truth of suffering, 2) the noble truth of the origin of suffering, 3) the noble truth of the cessation of suffering and the origin of suffering, and 4) the noble truth of the path that leads to the cessation of suffering and the origin of suffering (Masel, Schur, and Watzke, 2012: 308).

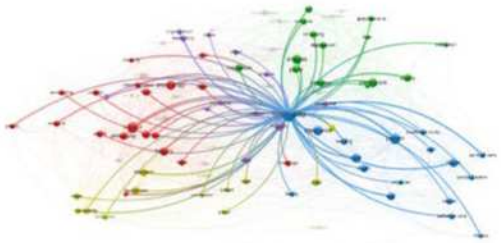


Fig. 1. A Bibliometric Map of Spirituality

As inferred from Oswald and Mascarenhas (2018), this study presents the two sets of triangular frameworks that describe the relationships between spirituality, morality, and ethics, on the one hand, and the relationships between the heart, body, and mind, on the other hand, as shown in Fig. 2. Spirituality is the science of heart, ethics is the science of principled moral value, which is the analytical work of the mind in morality valuation and application, and morality precedes ethics, is as old as humanity, and is bodily work manifesting the value-quality or character of a person, family, group, or society (Oswald and Mascarenhas, 2018), Although ethical concepts development and morality can cultivate spirituality, spirituality dawns with humankind, and takes precedence, as evidenced in Oswald and Mascarenhas (2018: 49) who explain that spirituality is "a primordial instinct of caring and sharing, giving and forgiving, protecting one another from harm, and doing good to one another that characterized our progenitors."

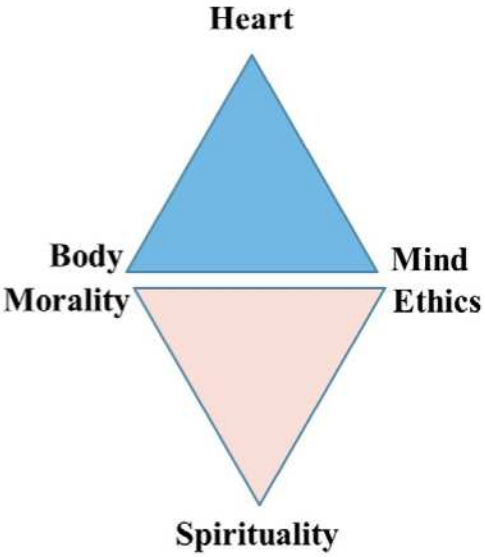
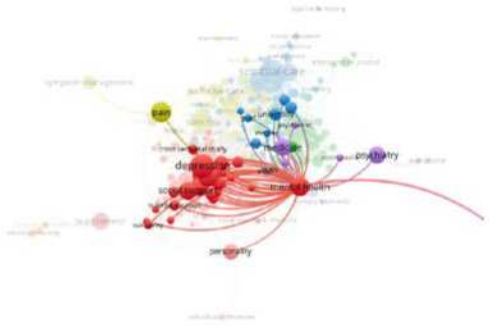


Fig. 2. Integrating Spirituality, Morality, and Ethics (Parallel to Heart, Body, and Mind)

The most cited domains in spirituality theme relate to cluster 1) depression, a need for social support, and mental health (Bhuiyan et al., 2021; Glorney et al., 2019; Koening, 2018), cluster 2) spiritual care (Ahmadi et al., 2021; Irmak and Midilli, 2021), cluster 3) palliative care (Masel, Schur, and Watzke, 2012), and cluster 4) workplace spirituality (Smudde, 2021). Fig. 3 presents the bibliometric map of the four clusters from the literature review. Research has shown that workplace spirituality can reduce stress and promote the well-being of the employees (Cunningham, 2014) and contribute to a trusting and innovative workplace (Pandey, Gupta, and Gupta, 2019). Spirituality is personal and dynamic; in connection to life meaning, purpose, and quality of life, spiritual support and care to patients are essential for their quick recovery (Connolly and Timmins, 2021). In addition, through spirituality focus, organizations can provide employees with a holistic view of life through pursuing the meaning and purpose in works (Srivastava and Gupta, 2021), leading to more substantial organizational commitment (Amin et al., 2020).



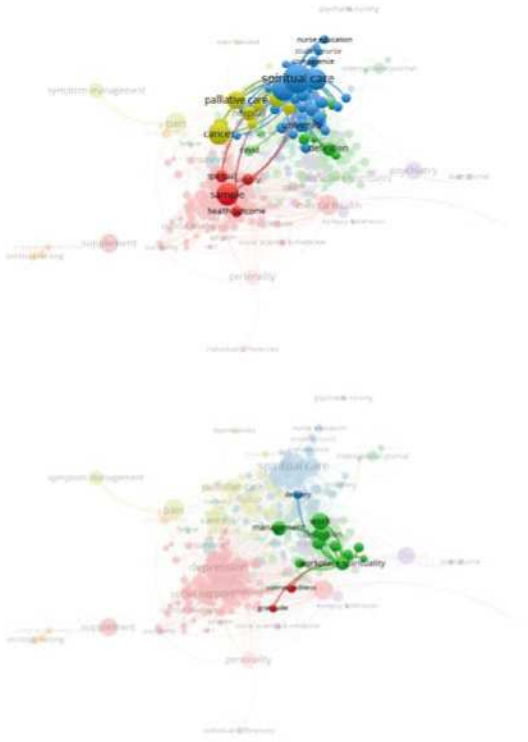


Fig. 3. Spirituality Application Domains

Albeit extensive research efforts seen in Figs. 1 to 3, there is a gap of spiritual development and applications to solve real-world problems using consciousness or mindfulness. This research thus aims to enrich the relationship between spirituality and consciousness (mindfulness) and draws application to the internet of things (IoT) to supplement human consciousness and artificial intelligence (AI) in social and business issues.

LITERATURE REVIEW

Given the introductory background and the objective in focusing on consciousness (or its dharmic training counterpart, known as mindfulness) as a critical entry point for internet of things (IoT) and artificial intelligence (AI) applications, the literature review would focus on combined keywords "consciousness and mindfulness." In simple terms, consciousness is “clear knowing” or “clear comprehension: (Pali: sampajana) and delineates the quality of awareness of the experience corresponding to the respective sensory environment (Grant and Zeidan, 2019: 192). In the Buddhist canon, mindfulness manifests an ability to remember what is conscious of, and right mindfulness, as advocated in the Buddhist’s Eightfold Path, which functions to bring one's to a knowledge of reality about the sensory experiences, feeling, the states of mind (or known as heart, or in Pali, "Citta"). Thus, mindfulness is a vital characteristic or qualia of Citta or mind to enable the formation of correct views and correct understanding, and as such, one is aware of the arising of happiness and pain and accepts the state of arising as it is (Choi et al., 2021).

The Buddhists reckon the dharmic practice as mindfulness-based meditation (Analayo, 2019).

Internet-of-things (IoT) can be a valuable supplement to human consciousness, which assists data acquisition and processing into utilizable knowledge and rules, such as for artificial intelligence (AI) application (Chang et al., 2021), credit evaluation, and early warning in finance (Wen et al., 2021), agriculture production safety enhancement (Anjanamma and Rao, 2021), and realizing smart cities (Rehman et al., 2021). This study is not about data aggregation mechanisms on IoT or the technical details (Yousefi, Karimipour, and Derakhshan, 2021). Instead, this study focuses on the sensory channels that induce consciousness using concepts rooted in Buddhist cannons. The dharmic understanding of consciousness can simplify understanding the theory of stimulus-organism-response (SOR), as shown in Fig. 4.

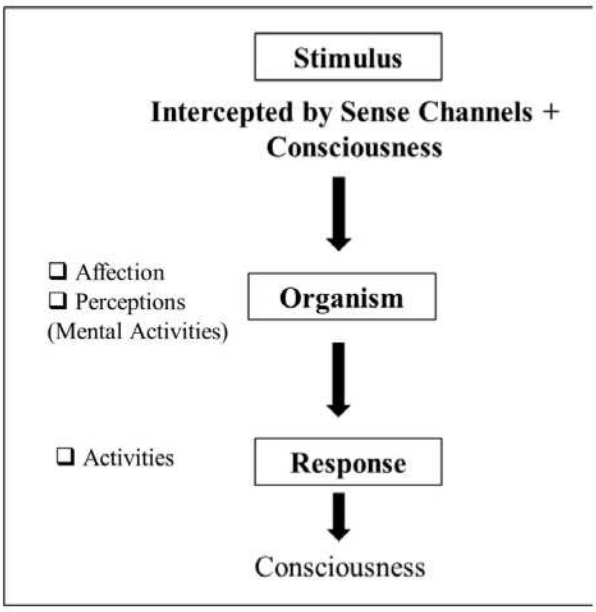


Fig. 4. The Stimulus-Response-Organism (S-O-R) Framework

The cyclical physical-psychological actions and reactions share the themes of the twelve-fold Dependent Origination or pattica-samuppada (Fig. 5) in Buddhist cannons (van Daele, 2006). Specifically, Fig. 4 depicts the Buddhist teaching in five aggregates of clinging: body or materiality (sensory experiences), affection, perceptions, activity formation, and consciousness. The Buddhist cannons indicate that the five aggregates of clinging manifest the S-O-R sequence (Mastiniwati et al., 2021) but actually in a cyclical manner, for instance, with the physical, verbal, and cognitive activity formation, consciousness arises, which brings a tendency towards the desires and craving, leading to the formation of personality traits and attitudes, worldviews, which in turn, influence the nature of activities, as depicted pictorially in Fig. 5.

Fig. 5. The Twelve-fold Dependent Origination of Buddhist Teaching

The twelve-fold dependent origination states the mundane world. In order to counteract the mundane cycle of continuing causes, conditions, and results, the Buddhist cannons advocate, for instance, using the Noble Eightfold Path, which includes right view, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration. The purpose of the Noble Eightfold Path is to "help people find wakefulness, let go individuals' reactions, experience freedom amid joys and sorrows, and neither grasp nor resist life, all of which give freedom from depression and lead to the attainment of peace of mind" (Tummmathai et al., 2020: 74). Thus, both the twelve-fold Dependent Origination and the Noble Eightfold Path match along, except that the latter is the dharmic practice that aims to generate correct views and thus, eliminate ignorance (wrong views), as shown in Fig. 6. A careful examination of Fig. 6 reveals that it also embeds the scientific concepts of Professor Karl Popper (cf. Bray, 1977), which has the world one of data realm, world two of consciousness or mindfulness domain, and the world three of knowledge formation.

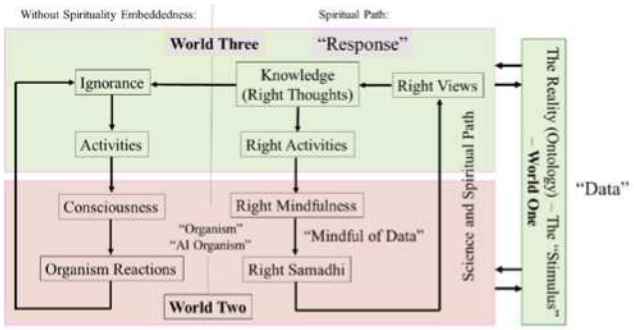


Fig. 6. The Dharmic Counteracting Path (The Noble Eightfold Path) to The Twelve-fold Dependent Origination

The applications using consciousness (i.e., IoT-assisted data, knowing function, and knowledge) in the context of the dharmic S-O-R model (Fig. 4) or the twelve-fold Dependent Origination version, which shares Karl Popper's three-world realms of sciences in Fig. 6, are wide-ranging. Fig. 6 also shares the S-O-R characteristics, namely the stimulus of the World one, the organism as a result of consciousness intervention, and organism reactions, leading to knowledge- or ignorance-induced responses. As the S-O-R theory of human behaviors is universal and has gained broad empirical testing and research validation, the concept of Buddhism sharing S-O-R architecture would help one understand Buddhism's spirituality teaching. Thus, logically and conceptually, the discussions have established operative linkage between IoTs, AI, and spirituality. Fig. 7 further expands the dharmic S-O-R structure into variable details, which research, for instance, in brand management (Kamboj et al., 2018), HRM, consumer behaviors (Li et al., 2021), often find validated.

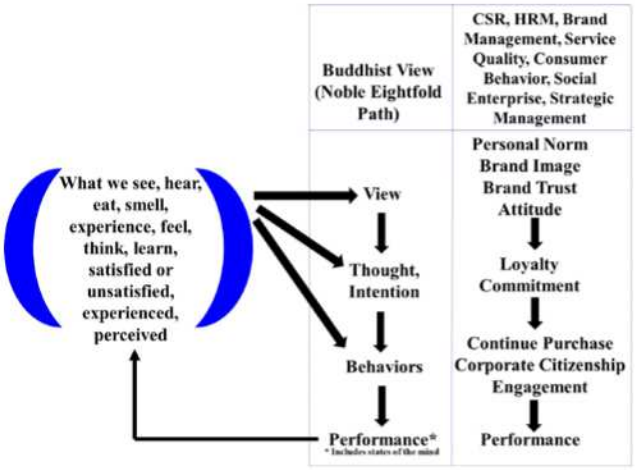


Fig. 7. The Expanded Dharmic S-O-R Structure

METHOD

This study treats the variables as consciousness subjects and uses neural network simulation to supplement the learning of these consciousness subjects. As such, the research effort serves the purpose of this study. The study focuses on upscale restaurant dining. The continuous upgrading of midscale "premiumization" and casualization of fine dining has made upscale restaurants facing intensive competitive challenges (Renner et al., 2012). Thus, food innovativeness becomes essential (Hallak et al., 2018). Food innovativeness is an aspect of restaurant innovativeness. There are other aspects of restaurant innovativeness: which includes service innovativeness (i.e., uniqueness and differentiation in service, technology, convenience procedure, cutting-edge service), experiential innovativeness (i.e., atmosphere and culture, the interaction between employees and customers, and the way to make customers satisfied), and promotional innovativeness (i.e., deals, advertising, targeted marketing, loyalty program, communication through social media and websites) (Kim, Tang, and Bosselman, 2018: 90). Rather than using innovativeness, this study uses construct names such as restaurant atmosphere and restaurant physical environment. The construct "food innovativeness" of this study shares the menu innovativeness of Kim et al., 2018, p. 90), which elaborates quality (new combination, new flavor, presentation) on the leading edge of current food trends, uniqueness, and customization).

PARTICIPANTS

This survey was conducted from late December 2019 to Jan 2020 by approaching the upscale restaurants in Chiang Mai for assistance. Four hundred two participated in the survey, equally distributed between males (54.5%) and females (45.5%). The mean age was around 30-39 (27.6%), with 40.3% in between 19-29, 19.7% in between 40-49, and 12.4% more than 50 years old. The majority was Thai, 60.7%. Education-wise, the majority had a Bachelor's degree at 43%, followed by postgraduate at 23.1%, college at 17.4%, high school at 9.7%, and less than high school at 6.7%. The majority were employed, at 53.2%, while students at 23.4%, and others at 23.4%. There was equal distribution on income level: less than 10k Baht at 25.9%, 10-15k Baht at 14%, 15-30k Baht at 29.7%, 30-60k Baht at 18.7%, and over 60k Baht at 11.7%. The majority frequently dined out, at 39.3%, and very frequently at 12.7%, and not frequent at 48%. Most of the dining occurred with accompaniment such as friends and family members, alone merely at 9%. The participants addressed they mostly spent weekends dining out, at 45.3%, or holiday at 31.3%, and workday had 23.4%. The participants chose either far away from home (42.8%) or close to home (57.2%). Participants found no difficulty in parking (81.6%).

SURVEY INSTRUMENT

As noted early, food innovativeness, restaurant atmosphere, and restaurant physical environment adopt the scales recommendation discussed in Kim et al. (2018). To operationalize subjective norm, attitude towards the restaurant, and experience sharing attitude, this study adopts the concepts advocated in the theory of planned behavior (Moon, 2021): That is, attitude toward behavior (dining at an upscale restaurant) is "the extent to which an individual evaluates the consequence of the behavior favorably or unfavorably" (Moon, 2021: 2), and the subjective norm is the influence of the social surrounding. This study adopts motive-oriented theories for value perceptions, especially utilitarian-hedonic motives (Brown, 2020) and customer value concepts (Kim et al., 2019). Specifically, this study considers three value perceptions: functional value, hedonic value, and economic value. Economic value presents the cost-oriented utility (Joshi, Uniyal, and Sangroya, 2021). Functional product is food-related (Feng et al., 2021). Hedonic value is particularly personal (Kim et al., 2019), has sensual pleasure, and generally enhances the positive emotion of the customers (Alzayat and Lee, 2021). Both food and product qualities are also parts of the values customers often perceive and reason to be essential (Kwon, Lee, and Back, 2020), but this study treats them as a stimulus, whereas the perceived values are organic perceptions in nature (cf. Hinojosa-Aguayo et al., 2022). Perceived quality is the consumer's judgment about a product's or service's "overall excellence" (Konuk, 2021: 2).

For the rest of the constructs (namely brand image, brand trust, customer satisfaction, and revisit intention), this study adopts Song, Wang, and Han (2019). Brand image is a perception form of "a process of symbolizing the experience of objects stored in humans' associative memory" (Song et al., 2019: 51); customer satisfaction is "a psychological notion about consumer's emotional evaluation of or the pleasurable degree of experience associated with specific products or services" (p. 51). Beings a human psychological state, brand trust manifests the willingness of the customers to depend on the brand based on "the belief or expectation resulting from its credibility, benevolence, and ability about its environmental performance" (Guo et al., 2018: 129). Customer revisit intention is a crucial attribute of customer loyalty (Tajeddini et al., 2022), which reflects the attitudinal and behavioral tendencies of the customers.

RESULTS

Before statistical and neural network simulation, we perform post-data validity (convergence and discriminant) and reliability assessments. The results, shown in Table 1, demonstrate the quality rigor of the survey instruments. Given that the square root of each construct's total variance explained (TVE) has a value more than the cross-correlation terms, with factor loading more than 0.6 for each measurement item, this study secures the convergent and discriminant validity. Cronbach's alpha represents the reliability assessment, which surpasses the threshold of 0.80 (Hair et al., 2006).

Table 1. Validity and Reliability Analysis of the Survey Instrument

	Validity and Reliability				Correlations														
	Reliability α	KMO	TVE	√TVE	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15
V1 Subjective Norm	0.814	0.701	0.713	0.896	1														
V2 Attitude towards Restaurant	0.877	0.724	0.803	0.896	.554**	1													
V3 Experience Sharing Attitude	0.891	0.722	0.822	0.907	.645**	.613**	1												
V4 Food Innovativeness	0.819	0.5	0.847	0.92	.456**	.464**	.462**	1											
V5 Food Quality	0.862	0.622	0.71	0.843	.482**	.606**	.530**	.623**	1										
V6 Service Quality	0.844	0.697	0.662	0.826	.441**	.644**	.576**	.546**	.728**	1									
V7 Restaurant Atmosphere	0.877	0.808	0.731	0.855	.515**	.694**	.621**	.569**	.648**	.639**	1								
V8 Physical Environment	0.852	0.817	0.694	0.833	.514**	.660**	.579**	.562**	.654**	.586**	.710**	1							
V9 Brand Trust	0.853	0.5	0.873	0.934	.493**	.676**	.608**	.546**	.672**	.604**	.660**	.661**	1						
V10 Brand Image	0.891	0.749	0.819	0.905	.529**	.710**	.642**	.513**	.583**	.635**	.694**	.721**	.781**	1					
V11 Customer Satisfaction	0.903	0.733	0.838	0.915	.513**	.663**	.694**	.534**	.677**	.713**	.674**	.662**	.691**	.724**	1				
V12 Functional Value	0.846	0.676	0.596	0.878	.468**	.576**	.550**	.611**	.696**	.667**	.655**	.650**	.625**	.615**	.694**	1			
V13 Hedonic Value	0.906	0.787	0.844	0.919	.580**	.695**	.611**	.512**	.674**	.666**	.711**	.668**	.685**	.644**	.746**	.677**	1		
V14 Economic Value	0.801	0.5	0.834	0.913	.462**	.593**	.585**	.560**	.643**	.589**	.689**	.695**	.625**	.582**	.624**	.636**	.592**	1	
V15 Revisit Intention	0.877	0.736	0.804	0.897	.463**	.611**	.607**	.530**	.631**	.625**	.636**	.580**	.710**	.630**	.611**	.629**	.668**	.569**	1

** Correlation is significant at the 0.01 level (2-tailed).

All the variables are conscious subjects in the context of the consciousness-based concept and the dharmic S-O-R models delineated in the literature review section. Just like the brain functioning, the neural network's multi-perceptron simulation, which uses 292 training data set, and 110 for validation purposes, yields in Table 2 a relative error of 0.256. As shown in Fig. 8, there are seven units of the one hidden layer using the hyperbolic tangent activation function. The dependent variable uses the identity activation function.

Table 2. Neural Network Simulation Setup and Error for Revisit Intention

Case Processing Summary

		N	Percent
Sample	Training	292	72.6%
	Testing	110	27.4%
Valid		402	100.0%
Excluded		0	
Total		402	

Model Summary

Training	Sum of Squares Error	42.947
	Relative Error	.295
	Stopping Rule Used	1 consecutive step (s) with no decrease in error[a]
	Training Time	0:00:00.15
Testing	Sum of Squares Error	14.707
	Relative Error	.256

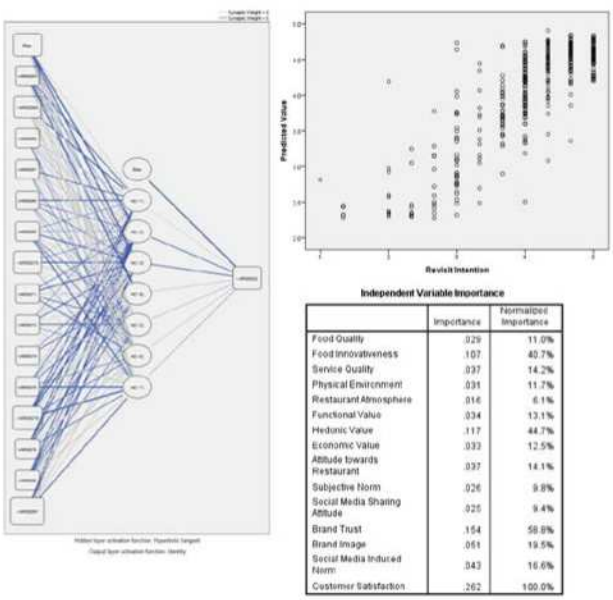
Dependent Variable: Revisit Intention

a. Error computations are based on the testing sample.

Network Information

Input Layer	Covariates	1	Food Quality
		2	Food Innovativeness
		3	Service Quality
		4	Physical Environment
		5	Restaurant Atmosphere
		6	Functional Value
		7	Hedonic Value
		8	Economic Value
		9	Attitude towards Restaurant
		10	Subjective Norm
		11	Social Media Sharing Attitude
		12	Brand Trust
		13	Brand Image
		14	Social Media Induced Norm
		15	Customer Satisfaction
	Number of Units[a]		15
	Rescaling Method for Covariates		Standardized
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1[a]		7
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Revisit Intention
	Number of Units		1
	Rescaling Method for Scale Dependents		Standardized
	Activation Function		Identity
	Error Function		Sum of Squares

a. Excluding the bias unit



Independent Variable Importance

	Importance	Normalized Importance
Food Quality	.029	11.0%
Food Innovativeness	.107	40.7%
Service Quality	.037	14.2%
Physical Environment	.031	11.7%
Restaurant Atmosphere	.016	6.1%
Functional Value	.034	13.1%
Hedonic Value	.117	44.7%
Economic Value	.033	12.5%
Attitude towards Restaurant	.037	14.1%
Subjective Norm	.026	9.8%
Social Media Sharing Attitude	.025	9.4%
Brand Trust	.154	58.8%
Brand Image	.051	19.5%
Social Media Induced Norm	.043	16.6%
Customer Satisfaction	.262	100.0%

Fig. 8. Revisit Intention Architecture and Result of the Neural Network Simulation

The result of the neural network simulation shows that customer satisfaction scores the most normalized importance weight, at 100%, followed distantly by the brand trust at 58.8%, hedonic value at 44.7%, and food innovativeness at 40.7%, as shown in Fig. 8. The other variables score below the twenty-percentages of normalized importance marks.

The neural network simulated result also matches the multiple regression analysis, given in Table 3.

Table 3. The Multiple Regression Analysis Result

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.813[a]	.660	.659	.49995
2	.826[b]	.682	.680	.48466
3	.833[c]	.693	.691	.47634
4	.836[d]	.698	.695	.47274

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.642	.125		5.145	.000
	Customer Satisfaction	.827	.030	.813	27.880	.000
2	(Constant)	.483	.125		3.874	.000
	Customer Satisfaction	.628	.048	.616	13.010	.000
	Brand Trust	.242	.047	.245	5.162	.000
3	(Constant)	.380	.125		3.027	.003
	Customer Satisfaction	.524	.054	.515	9.629	.000
	Brand Trust	.217	.046	.220	4.675	.000
	Hedonic Value	.155	.040	.163	3.880	.000
4	(Constant)	.246	.134		1.829	.068
	Customer Satisfaction	.512	.054	.503	9.458	.000
	Brand Trust	.190	.047	.192	4.022	.000
	Hedonic Value	.136	.040	.143	3.376	.001
	Food Innovativeness	.101	.038	.091	2.660	.008

a. Dependent Variable: Revisit Intention

Based on the guidelines of the neural network simulation and the result of the multiple regression, the structural equation model (SEM) computation yields robust model-fitting results, as shown in Fig. 9. The SEM statistics are: χ^2=119.54, df=55, χ^2/df = 2.174, and relative fit indexes, namely NFI = 0.972, RFI = 0.9612, IFI = 0.985, TLI = 0.979, CFI = 0.985, and root-mean-square error (RMSEA) at 0.054. The model-fitting results comply with the requirements for a good model fit as guided by Hair et al. (2006).

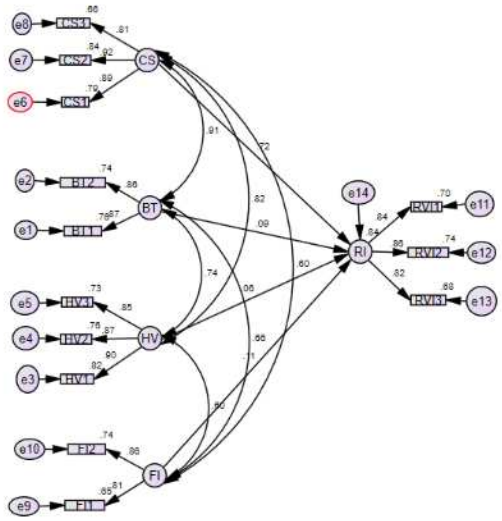


Fig. 9. Computed Structural Equation Model

The comparative statistical analysis performed using ANOVA and t-test, with the results given in Table 4 and Table 5, reveal numerous patterns of consumer behaviors towards upscale restaurants. The square block of the comparative data is a zone of significant differences to sig., at 0.05 level (2-tailed). The significant differences of broader scopes of influence are domains of nationality (which sees Thai in more favorable terms than the non-Thai) and parking facilities.

Table 4. Comparative Statistics Results for the S Variables

Variables		Frequency	Percentage	Stimuli: Subjective Norm	Attitude towards Restaurant	Experience Sharing Attitude	Food Innovativeness	Food Quality	Service Quality	Restaurant Atmosphere	Restaurant Physical Environment
	Mean			3.69	4.02	3.83	3.67	4.03	4.06	3.86	3.98
	Standard Deviation			0.96	0.77	0.74	0.77	0.77	0.75	0.78	0.75
Gender											
	Male	219	54.5	3.41	4.04	3.82	3.72	4.1	4.1	3.88	4.04
	Female	183	45.5	3.55	3.99	3.84	3.6	3.96	4.02	3.83	3.92
Age											
	19-29	162	40.3	3.54	3.99	3.89	3.62	4.08	4.07	3.81	3.97
	30-39	111	27.6	3.54	4.01	3.89	3.72	4.06	4.12	3.86	4.01
	40-49	79	19.7	3.4	3.98	3.71	3.75	3.96	3.94	3.93	3.98
	Above 50	50	12.4	3.23	4.16	3.67	3.53	3.94	4.11	3.87	3.96
Nationality											
	Thai	244	60.7	3.64	4.09	3.93	3.69	4.07	4.14	3.91	4.07
	Non-Thai	158	39.3	3.21	3.91	3.67	3.63	3.98	3.94	3.78	3.86
Education											
	Less than high-school	27	6.7	3.19	3.95	3.51	3.54	3.76	3.94	3.86	3.64
	High-school	39	9.7	3.89	3.85	3.96	3.94	4.01	4	3.8	3.93
	College	70	17.4	3.41	4.01	3.76	3.61	3.86	3.87	3.8	3.93
	Bachelor	173	43	3.44	3.99	3.84	3.56	4.05	4.12	3.82	4.02
	Post-graduate	93	23.1	3.49	4.16	3.9	3.84	4.21	4.17	3.99	4.08
Occupation											
	Student	94	23.4	3.45	3.94	3.85	3.61	4.12	4.11	3.8	3.95
	Employed	214	53.2	3.48	4.04	3.83	3.64	4.01	4.04	3.86	3.98
	Other	94	23.4	3.47	4.05	3.8	3.76	4	4.07	3.91	4.05
Income											
	Less than 10,000 Baht	104	25.9	3.65	4.04	3.97	3.72	4.12	4.21	3.9	4
	10-15,000 Baht	57	14.2	3.66	4.02	3.89	3.68	4	3.89	3.82	4.04
	15-30,000 Baht	119	29.6	3.58	3.97	3.76	3.54	3.92	4.01	3.82	3.97
	30-60,000 Baht	75	18.7	3.59	3.96	3.85	3.67	3.94	3.99	3.78	3.85
	Above 60,000 Baht	47	11.7	2.92	4.18	3.62	3.84	4.3	4.21	4.03	4.15
Dining Frequency											
	Not frequent/occasional	193	48	3.33	4.05	3.78	3.6	4.07	4.11	3.85	4.01
	Frequently	158	39.3	3.62	3.98	3.89	3.76	4	4.07	3.87	4
	Very frequently	51	12.7	3.86	3.99	3.8	3.64	3.97	3.88	3.83	3.82
Dining Accompany											
	By yourself	36	9	3.45	3.62	3.59	3.41	3.61	3.43	3.7	3.63
	With friends	122	30.3	3.52	3.99	3.83	3.66	4.02	4.05	3.85	3.97
	With family	111	27.6	3.43	4.08	3.83	3.68	4.03	4.13	3.92	4.05
	With family and friends	111	27.6	3.52	4.12	3.92	3.7	4.15	4.2	3.83	4.03
	Other	22	5.5	3.22	3.95	3.72	3.91	4.19	4.19	3.93	4.04
Dining Period											
	Workday	94	23.4	3.68	4.14	3.98	3.71	4.1	4.17	3.99	4.03
	Weekend	182	45.3	3.39	3.89	3.79	3.57	4.03	4.01	3.73	3.91
	Holiday	126	31.3	3.44	4.11	3.76	3.77	3.98	4.05	3.93	4.07
Dining Place											
	Close to home	230	57.2	3.41	3.96	3.8	3.61	4	4.04	3.77	3.9
	Far away	172	42.8	3.56	4.09	3.86	3.75	4.07	4.1	3.97	4.1
Parking difficulty											
	Yes	74	18.4	3.43	3.61	3.64	3.31	3.68	3.66	3.48	3.59
	No	328	81.6	3.48	4.11	3.87	3.74	4.11	4.16	3.94	4.07

Table 5. Comparative Statistics Results for the O-R Variables

Variables		Frequency	Percentage	Organism: Brand Trust	Brand Image	Customer Satisfaction	Functional Value	Hedonic Value	Economic Value	Response: Revisit Intention
	Mean			4.05	3.9	4.11	3.99	4.04	3.91	4.04
	Standard Deviation			0.86	0.79	0.84	0.73	0.89	0.74	0.85
Gender										
	Male	219	54.5	4.11	3.93	4.19	4.03	4.13	3.91	4.08
	Female	183	45.5	3.99	3.86	4.02	3.94	3.95	3.91	4
Age										
	19-29	162	40.3	4.07	3.85	4.09	3.99	4	4.01	4.04
	30-39	111	27.6	4.14	3.88	4.22	4.01	4.14	3.87	4.19
	40-49	79	19.7	3.94	3.96	4.06	3.96	4.09	3.8	3.98
	Above 50	50	12.4	4	3.98	4.05	3.99	3.92	3.87	3.88
Nationality										
	Thai	244	60.7	4.1	3.98	4.13	4.05	4.07	3.96	4.04
	Non-Thai	158	39.3	3.97	3.76	4.09	3.89	4.01	3.84	4.05
Education										
	Less than high-school	27	6.7	3.57	3.67	3.77	3.88	3.84	3.7	3.62
	High-school	39	9.7	3.93	3.81	4.04	3.99	3.83	3.88	3.89
	College	70	17.4	3.92	3.86	3.96	3.82	3.92	3.82	3.97
	Bachelor	173	43	4.1	3.88	4.16	4.01	4.09	3.93	4.06
	Post-graduate	93	23.1	4.26	4.06	4.27	4.1	4.21	4.02	4.26
Occupation										
	Student	94	23.4	4.12	3.82	4.09	4.01	3.99	3.96	4.02
	Employed	214	53.2	4.01	3.9	4.11	3.97	4.07	3.88	4.05
	Other	94	23.4	4.06	3.97	4.13	4.01	4.03	3.93	4.05
Income										
	Less than 10,000 Baht	104	25.9	4.14	3.89	4.19	4.08	4.04	3.98	4.04
	10-15,000 Baht	57	14.2	3.99	3.89	3.94	3.96	4.01	3.91	3.84
	15-30,000 Baht	119	29.6	4	3.85	4.12	3.94	4.07	3.9	4.1
	30-60,000 Baht	75	18.7	3.97	3.86	4.09	3.91	4.01	3.78	4.01
	Above 60,000 Baht	47	11.7	4.26	4.14	4.23	4.07	4.1	4.04	4.19
Dining Frequency										
	Not frequent/occassional	193	48	4.04	3.89	4.14	4.03	4.09	3.91	4.03
	Frequently	158	39.3	4.11	3.94	4.12	3.97	4.04	3.95	4.07
	Very frequently	51	12.7	3.92	3.77	3.96	3.88	3.87	3.8	4
Dining Accompany										
	By yourself	36	9	3.5	3.49	3.53	3.667	3.57	3.75	3.54
	With friends	122	30.3	4.07	3.85	4.12	3.96	4	3.94	4
	With family	111	27.6	4.09	4	4.15	4.13	4.1	3.93	4.01
	With family and friends	111	27.6	4.15	3.96	4.26	3.96	4.18	3.88	4.28
	Other	22	5.5	4.13	4.01	4.13	4.13	4.1	4.11	4.07
Dining Period										
	Workday	94	23.4	4.1	3.97	4.23	4.01	4.13	4	4.18
	Weekend	182	45.3	3.98	3.78	4.08	3.92	4.03	3.86	4.05
	Holiday	126	31.3	4.12	4.01	4.07	4.06	4	3.93	3.93
Dining Place										
	Close to home	230	57.2	4.04	3.85	4.11	3.93	3.97	3.89	4.06
	Far away	172	42.8	4.07	3.96	4.12	4.07	4.15	3.95	4.02
Parking difficulty										
	Yes	74	18.4	3.69	3.48	3.81	3.72	3.59	3.59	3.66
	No	328	81.6	4.13	3.99	4.18	4.05	4.15	3.98	4.13

DISCUSSION

Bakar (2020) notes that higher learning institutions have started integrating spirituality themes into the contemporary intellectual landscape. The productive capabilities of one being spiritually strong can lead one, for instance, to enjoy mental health (Peteet, 2019), innovative behavior in teams (Pandey, Gupta, and Gupta, 2019), leadership influence (Dent, Higgins, and Wharff, 2005), and trust and network commitment (Kurt et al., 2016).

Being motivated by artificial intelligence as another supplement to human intelligence (Vernier et al., 2020), this study aims to bridge spirituality and artificial intelligence. Realizing that intelligence is beyond algorithmic (Vernier et al., 2020), this study exploits concepts of the Buddhist cannons, in particular of the twelve-fold Dependent Origination, five aggregates of clinging, the mindfulness-based meditation, and the Noble Eightfold Path, and draws an S-O-R contextual and Karl Popper's three worlds-scientific logic in the spirituality comprehension. In order to unify the broad spectrum of spirituality and science-based knowledge, this study uses "consciousness" and its conscious subjects (noted as measured variables). The use of consciousness is sensible as the emerging industries 4.0 and 5.0 have the root at data through the internet of things (Jin and Zhao, 2021), and it allows computational intelligence tools to be feasible (Guerra-Montenegro et al., 2021). In this context, researchers can exploit technological means to obtain consciousness subjects (the measured variables) and treat them with artificial intelligence tools, to yield intelligence to complement human intelligence. From the Buddhist's Dependent Origination perspective, the complementarity provides an intelligent way for human's spirituality development which aims to reduce ignorance of human beings. This study has illustrated the advocated concept using neural network simulation of the 402 data obtained to study how customers perceive, behave and respond to upscale restaurant experiences. Both multiple regression analysis and structural equation modeling (SEM) computation further provide the validity of the neural network simulation.

There are numerous significant findings in the upscale restaurant case examined in this study. Consumers who perceive no parking difficulty show favorable terms in all the constructs studied, which shares the contextual theme discussed in Yen et al. (2020). Specifically, Yen et al. (2020) state that car parking is essential to Australian restauranteurs, which manifests a built-environmental influence on consumers. Nevertheless, Yen et al. (2020) also note the pragmatic need to balance car parking facilities and allocation for higher-value activities. Solo dining has a lower favorable attitude towards the restaurant and the customers' perceptions of food and service quality. Choi et al. (2020) provide some exploratory findings and arguments on solo dining, and they draw to an aspect of social gaze (i.e., being seen as lonely by other diners and restaurant staff, p. 2), which causes stress and discomfort to consumers. Another significant finding is about the subjective norm. This study identifies that the occasional or not frequent diners have a lower perceived subjective norm. Thus, to increase the frequency of dining, it is essential not to neglect subjective norms, as when an important person or group of people approve the consumption behaviors, brand love and acceptance arise (Izquierdo-Yusta et al., 2022).

CONCLUSION

The use of bibliometric mapping helps this study identify "consciousness" as a gap yet the crucial entry point for clarifying the role of spirituality in artificial intelligence (AI) application. The Buddhist canons provide the knowledge base for illuminating the discourses of consciousness applications. Nevertheless, to speak in a language that most researchers and practitioners will easily comprehend, this study adopts the S-O-R theory and Karl Popper's logic of sciences for explanations. S-O-R theory postulates that "the internal judgment procedure of the organism is initiated by a stimulus that influences consumers' cognitive and affective evaluations and accordingly impacts responses" (Konuk, 2021: 2). In the language of Professor Karl Popper, the stimulation arises from World One, and World Three is the knowledge derived as a result of the consciousness-induced learning of World Two. Thus, this study also contributes to human behaviors (consumer behaviors, human resource behaviors) and sciences.

Neural network simulation provides the AI instrument to examine how customers perceive and form responses towards upscale restaurants, which illuminates the dharmic S-O-R dynamics that characterize spirituality. The analysis exploits neural network simulation because it functions as human-neural experiences subject to learning and knowing from exposure to consciousness subjects. The physical-cognitive-psychological process resembles the Buddhist teaching captured through the Noble Eightfold Path, the mindfulness-based mediation, the five aggregates of clinging, and the twelve-fold Dependent Origination. The empirical analysis results from the neural network, regression or structural equation modeling (SEM) lead to the same conclusions.

LIMITATION AND FURTHER RESEARCH

At the theoretical Buddhist concept of spirituality and consciousness subjects, both the empirical validation using upscale restaurants as cases and supports of research in the extant literature relating to the S-O-R theory and professor Karl Popper's three-world logic of sciences validate the applicability of the title of this study. However, there are some general limitations at the demographic and sample level. For instance, the comparatively higher level of the agreeableness of the Thai, relative to the non-Thai, with the measurement items of the construct has little background knowledge for meaningful interpretation. This oversight is not apparent during the research process, but the result (consciousness subject) leads to necessary corrective action plans. Further research should focus on the characteristics of the demographic variables that can more meaningfully differentiate and characterize the sample. Nevertheless, the consciousness subjects-induced knowledge aligns with the core concept of this study – That is, knowledge or ignorance is a direct result of how we are conscious of the issue at hand and make sense of it.

This research also identifies a significant statistical difference between the solo diners' attitudes toward upscale restaurants and quality perceptions. According to Choi et al.

(2020), solo diners often have a more significant discomfort level because of harmful social gaze. Thus, the finding offers practical measures to rectify and areas for further research. For instance, Cluzel, Guichard, and Riche (2019) identify that the larger the group of diners, the higher is the individual spends. In addition, to increase the frequency of dining, it is essential not to neglect subjective norms, as when an important person or group of people approve the consumption behaviors, brand love and acceptance arise (Izquierdo-Yusta et al., 2022). Time of dining is also essential. This study notes that weekend diners have the least favorable perceptions, opinions, attitudes, and positive responses to their dining experiences. A review of the extant literature on this issue reveals a significant gap to be filled.

REFERENCES

Ahmadi, M., Estebasri, F., Poormansouri, S., Jahani, S., & Sedighie, L. (2021). Perceived professional competence in spiritual care and predictive role of spiritual intelligence in Iranian nursing students. Nurse Education in Practice, 57, 103227. Doi: 10.1016/j.nepr.2021.103227.

Al-Shura, A.N. (2020). Spirituality. Ayurvedic perspectives in integrative healthcare, 8, 189-193. Doi: 10.1016/B978-0-12-817602-3-00023-6.

Alzayat, A., & Lee, S.H. (2021). Virtual products as an extension of my body: exploring hedonic and utilitarian shopping value in a virtual reality retail environment. Journal of Business Research, 130, 348-363. Doi: 10.1016/j.jbusres.2021.03.017.

Analayo, B. (2019). Adding historical depth to definitions of mindfulness. Current Opinions in Psychology, 28, 11-14. Doi: 10.1016/j.copsyc.2018.09.013.

Amin, S., Adriani, Z., Khaeruddin, & Habibi, A. (2020). DATASET for validation of the relationship between workplace spirituality, organizational commitment, and workplace deviance. Data in Brief, 31, 105872.Doi:10.1016/j.dib.2020.105872.

Anjanamma, C., & Rao, N.S. (2021). An internet of things (IoT) system development and implementation of data analytics in agriculture production safety enhancement. Materials Today: Proceedings. Doi: 10.1016/j.matpr.2020.12.417.

Bakar, B. (2020). Integrating spirituality in tourism higher education: a study of tourism educators' perspectives. Tourism Management Perspectives, 34, 100653. Doi: 10.1016/j.tmp.2020.100653.

Bhuiyan, N., McNeill, L.H., Bopp, M., Downs, D.S., & Mama, SK (2021). Fostering spirituality and psychosocial health through mind-body practices in underserved populations. Integrative Medicine Research, 11, 100755. Doi: 10.1016/j.imr.2021.100755.

Bray, J.B. (1977). The logic of scientific method in economics. Journal of Economic Studies, 4(1), 1-28. Doi: 10.1108/eb002463.

Brown, J.R. (2020). The competitive structure of restaurant retailing: the impact of hedonic-utilitarian patronage motives. Journal of Business Research, 107, 233-244. Doi: 10.1016/j.jbusres.2018.09.010.

Chang, C.L., Chung, S.C., Fu, W.L., & Huang, C.C. (2021). Artificial intelligence approaches to predict growth, harvest day, and quality of lettuce (Lactuca Sativa L.) in a IoT-enabled greenhouse system. Biosystems Engineering, 212, 77-105. Doi: 10.1016/j.biosystemseng.2021.09.015.

Choi, E., Farb, N., Pogrebtsova, E., Gruman, J., & Grossmann, I. (2021). What do people mean when they talk about mindfulness? Clinical Psychology Review, 89, 102085. Doi: 10.1016/j.cpr.2021.102085.

Choi, S.H., Yang, E.C.L., & Tabari, S. (2020). Solo dining in Chinese restaurants: a mixed-method study in Macao. International Journal of Hospitality Management, 90, 102628. Doi: 10.1016/j.ijhm.2020.102628.

Clauzel, A., Guichard, N., & Riche, C. (2019). Dining alone or together? The effect of group size on the service customer experience. Journal of Retailing and Consumer Services, 47, 222-228. Doi: 10.1016/j.jretconser.2018.11.010.

Crisp, B.R. (2018). Religion, spirituality and social work: an international perspective. International Journal of Human Rights in Healthcare, 11(2), 91-99. Doi: 10.1108/ijhrh-10-2017-0060.

Connolly, M. & Timmins, F. (2021). Spiritual care for individuals with cancer: the importance of life review as a tool for promoting spiritual well-being. Seminars in Oncology Nursing, 37, 151209. Doi: 10.1016/j.soncn.2021.151209.

Cunningham, C.J.L. (2014). Religion and spirituality as factors that influence occupational stress and well-being. The role of demographics in occupational stress and well being (Research in occupational stress and well being, Vol. 12, pp. 135-172). Emerald Group Publishing Limited. Doi: 10.1108/S1479-35520140000012004.

Dent, E.B., Higgins, M.E., & Wharff, D.M. (2005). Spirituality and leadership: an empirical review of definitions, distinctions, and embedded assumptions. The Leadership Quarterly, 16, 625-653. Doi: 10.1016/j.leaqua.2005.07.002.

Feng, J.Y., Wang, R., Thakhur, K., Ni, Z.J., Zhu, Y.Y., Hu, F., Zhang, J.G., & Wei, Z.J. (2021). Evolution of okara from waste to value-added food ingredient: an account of its bio-valorization for improved nutritional and functional effects. Trends in Food Science & Technology, 116, 669-680. Doi: 10.1016/j.tifs.2021.08.011.

Glorney, E., Raymont, S., Lawson, A., & Allen, J. (2019). Religion, spirituality and personal recovery among forensic patients. Journal of Forensic Practice, 21(3), 190-200. Doi: 10.1108/jfp-05-2019-0021.

Grant, J.A., & Zeidan, F. (2019). Employing pain and mindfulness to understand consciousness: a symbiotic relationship. Current Opinion in Psychology, 27, 192-197. Doi: 10.1016/j.copsyc.2018.12.025.

Guerra-Montenegro, J., Sanchez-Medina, J., Lana, I., Sanchez-Rodriguez, D., Alonso-Gonzalez, I., & Ser, J.D. (2021). Computational intelligence in the hospitality industry: a systematic literature review and a prospect of challenges. Applied Soft Computing Journal, 102, 107092. Doi: 10.1016/j.asoc.2021.107082.

Guo, R., Zhang, W., Wang, T., Li, CB, & Tao, L. (2018). Timely or considered? Brand trust repair strategies and mechanism after greenwashing in China – from a legitimacy perspective. Industrial Marketing Management, 72, 127-137. Doi:

10.1016/j.indmarman.2018.04.001.
Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). Multivariate data analysis. Upper Saddle River, New Jersey: Pearson Education International.
Hallak, R., Assaker, G., O'Connor, P., & Lee, C. (2018). Firm performance in the upscale restaurant sector: the effects of resilience, creative self-efficacy, innovation and industry experience. Journal of Retailing and Consumer Sciences, 40, 229-240. Doi: 10.1016/j.jretconser.2017.10.014.
Hinojosa-Aguayo, I., Garcia-Burgos, D., Catena, A., & Gonzalez, F. (2022). Implicit and explicit measures of the sensory and hedonic analysis of bear: the role of tasting expertise. Food Research International, 152, 110873. Doi: 10.1016/j.foodres.2021.110873.
Irmak, H., & Midilli, T.S. (2021). The relationship between psychiatric nurses' spiritual care practices, perceptions and their competency. Archives of Psychiatric Nursing, 35, 511-518. Doi: 10.1016/j.apnu.2021.07.006.
Izquierdo-Yusta, A., Martinez-Ruiz, M.P., Perez-Villarreal, H.H. (2022). Studying the impact of food values, subjective norm and brand love on behavioral loyalty. Journal of Retailing and Consumer Services, 65, 102885. Doi: 10.1016/jretconser.2021.102885.
Jin, H.& Zhao, J. (2021). Real-time energy consumption detection simulation of network node in internet of things based on artificial intelligence. Sustainable Energy Technologies and Assessments, 44, 101004. Doi: 10.1016/j.seta.2021.101004.
Joshi, Y., Uniyal, D.P., & Sangroya, D. (2021). Investigating consumers' green purchase intention: examining the role of economic value, emotional value and perceived marketplace influence. Journal of Cleaner Production, 328, 129638. Doi: 10.1016/j.jclepro.2021.129638.
Kamboj, S., Sarmah, B., Gupta, S., & Dwivedi, Y. (2018). Examining branding co-creation in brand communities on social media: applying the paradigm of stimulus-organism-response. International Journal of Information Management, 39, 169-185. Doi: 10.1016/j.ijinfomgt.2017.12.001.
Kim, E., Tang, L., & Bosselman, R. (2018). Measuring customer perceptions of restaurant innovativeness: developing and validating a scale. International Journal of Hospitality Management, 74, 85-98. Doi: 10.1016/j.ijhm.2018.02.018.
Kim, S., Ham, S., Moon, H., Chua, B.L., & Han, H. (2019). Experience, brand prestige, perceived value (functional, hedonic, social, and financial), and loyalty among GROCERANT customers. International Journal of Hospitality Management, 77, 169-177. Doi: 10.1016/j.ijhm.2018.06.026.
Konuk, F.A. (2021). The moderating impact of taste award on the interplay between perceived taste, perceived quality and brand trust. Journal of Retailing and Consumer Services, 63, 102698. Doi: 10.1016/j.jretconser.2021.102698.
Kurt, Y., Yamin, M., Sinkovics, N., & Sinkovics, R.R. (2016). Spirituality as an antecedent of trust and network commitment: the case of Anatolian Tigers. European Management Journal, 34, 686-700. Doi: 10.1016/j.emj.2016.06.011.
Kwon, W., Lee, M., & Back, K.J. (2020). Exploring the underlying factors of customer values in restaurants: a machine learning approach. International Journal of Hospitality Management, 91, 102643. Doi: 10.1016/j.ijhm.2020.102643.
Koening, HC (2018). Chapter 1 – religion vs. spirituality. Religion and mental health. Research and Clinical Applications, 3-19. Doi: 10.1016/B978-0-12-811282-3-00001-X.
Li, X., Zhou, Y., Wong, Y.D., Wang, X., & Yuen, K.F. (2021). What influences panic buying behavior? A model based on dual-system theory and stimulus-organism-response framework. International Journal of Disaster Risk Reduction, 64, 102484. 10.1016/j.ijdrr.2021.102484.
Masel, E.K., Schur, S.S., & Watzke, H.H. (2012). Life is uncertain. Death is certain. Buddhism and palliative care. Journal of Pain and Symptom Management, 44(2), 307-312. Doi: 10.1016/j.jpainsumman.2012.02.018.
Mastiniwati, T., Mansor, T., Ariff, A.M., Hashim, H.A., & Ngah, A.H. (2021). External whistleblowing intentions of auditors: a perspective based on stimulus-organism-response theory. Corporate Governance. Doi: 10.1108/CG-03-2021-0116.
Moon, S.J. (2021). Investigating beliefs, attitudes, and intentions regarding green restaurant patronage: an application of the extended theory of planned behavior with moderating effects of gender and age. International Journal of Hospitality Management, 92, 102727. Doi: 10.1016/j.ijhm.2020.102727.
Oswald, A.J., & Mascarenhas, S.J. (2018). The domain and context of corporate ethics: introducing concepts and directions. Corporate ethics for turbulent markets (pp. 45-78). Emerald Publishing Limited. Doi: 10.1108/978-1-78756-187-82018003.
Oswald, A.J., & Mascarenhas, S.J. (2019). The ethics of corporate executive virtues. Corporate ethics for turbulent markets (pp. 43-75), Emerald Publishing Binley. Doi: 10.1108/978-1-78756-191-520191003.
Pandey, A., Gupta, V., & Gupta, R.K. (2019). Spirituality and innovative behavior in teams: examining the mediating role of team learning. IIMB Management Review, 31, 116-126. Doi: 10.1016/j.iimb.2019.03.013.
Peteet, JR (2019). Spirituality and mental health: implications for ethics, medicine, and public health. Ethics, Medicine and Public Health, 9, 75-79. Doi: 10.1016/j.jemep.2019.05.002.
Rehman, A., Haseeb, K., Saba, T., & Kolivand, H. (2021). M-SMDM: a model of security measures using green internet of things with cloud-integrated data management for smart cities. Environmental Technology & Innovation, 24, 101802. Doi: 10.1016/j.eti.2021.101802.
Smudde, P.M. (2021). Internal public relations' role with workplace, spirituality, and religion. Public Relations Review, 47, 102121. Doi: 10.1016/j.pubrev.2021.102121.
Song, H.J., Wang, J.H., & Han, H. (2019). Effect of image, satisfaction, trust, love, and respect on loyalty formation for name-brand coffee shops. International Journal of Hospitality Management, 79, 50-59. Doi: 10.1016/j.ijhm.2018.12.011.

Srivastava, S., & Gupta, P. (2021). Workplace spirituality as panacea for waning well-being during the pandemic crisis: A SDT perspective. Journal of Hospitality and Tourism Management. Doi: 10.1016/j.jhtm.2021.11.014.

Steinhauser, K.E., Fitchett, G., Handzo, G.F., Johnson, K.S., Koenig, H.G., Pargament, K.I., Purchalski, C.M., Sinclair, S., Taylor, E., & Balboni, T.A. (2017). State of the science of spirituality and palliative care research part I: definitions, measurement, and outcomes. Journal of Pain and Symptom Management, 54(3), 428-440. Doi: 10.1016/j.jpainsymman.2017.07.028.

Takeddini, K., Gamage, T.C., Hameed, W.U., Qumsieh-Mussalam, G., Chaijani, M.H., Rasoolimanesh, S.M., & Kalmuenzer, A. (2022). How self-gratification and social values shape revisit intention and customer loyalty of Airbnb customers. International Journal of Hospitality Management, 100, 103093. Doi: 10.1016/j.ijhm.2021.103093.

Tummathai, K., Sethabouppha, H., Chanprasit, C., & Lasuka, D. (2020). Depression prevention in adolescents based on Buddhism and sufficiency economy philosophy. Archives of Psychiatric Nursing, 34, 70-74. Doi: 10.1016/j.apnu.2019.10.005.

Van Daele, W. (2006). Desiring foods: cultivating non-attachment to nourishment in Buddhist Sri Lanka. Appetite, 105, 212-217. Doi: 10.1016/j.appet.2016.04.021.

Vernier, G., Caselles-Dupe, H., & Fautre, P. (2020). Facets of AGI: where science meets spirituality. Patterns, 1(8), 100149. Doi: 10.1016/j.patter.2020.100149.

Wen, C., Yang, J., Gan, L., & Pan, Y. (2021). Big data-driven internet of things for credit evaluation and early warning in finance. Future Generation Computer Systems, 124, 295-307. Doi: 10.1016/j.future.2021.06.003.

Yen, B.T.H., Mulley, C., Burke, M., & Tseng, W.C. (2020). Parking and restaurant business: differences in business perceptions and customer travel behavior in Brisbane, Queensland, Australia. Land Use Policy, 103818. Doi: 10.1016/j.landusepol.2019.01.021.

Yousefi, S., Karimipour, H., & Derakhshan, F. (2021). Data aggregation mechanisms on the internet of things: a systematic literature review. Internet of Things, 15, 100427. Doi: 10.1016/j.iot.2021.100427.