



APPLICATION OF STIMULUS-ORGANISM-RESPONSE (S-O-R) THEORY TO STUDY CONSUMER BEHAVIOR OF UPSCALE RESTAURANTS IN NORTHERN THAILAND

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ABSTRACT

This study adapts and tests the theory of stimulus-organism-response (S-O-R) in upscale restaurant context, which makes a significant contribution by segregating the stimuli into restaurant inducement and attitudinal level. The attitudinal level adapts the theory of planned behavior with an extended emphasis on social media-induced attitude to reflect the contemporary norm of social lifestyle. The restaurant-induced stimuli consider service and food qualities, and restaurant atmosphere. These stimuli would be studied for their ability to predict the different types of customer values namely economic value, hedonic value and functional value, and brand image, customer satisfaction and brand trust known as organism. The response includes another vastly neglected factor known as experience sharing especially useful for marketers to exploit for brand awareness creation and externality effect. In doing so this study would add significantly to the body of knowledge by exploiting the S-O-R theory in social media environment. The sampling is convenience based, by focusing on customers who have had visited any upscale restaurants in Northern Thailand. Judging from the numerous hypotheses raised, correlations, hierarchical multiple regressions and structural equation modeling (SEM) would be the main statistical analysis methods.

Keywords: S-O-R, upscale restaurant, brand trust, brand image, social media

1. INTRODUCTION

Businesses in this world are established to respond to human needs such as to solve their living situation in order to survive and live their life happily. Food is considered as one major factor that is very important as the basic of human need. This has been repetitively stressed by the Maslow law of motivation and its variations. There are many channels to provide the basic physical requirements to support the daily needs of people, in which restaurant is one. Siam Makro.com (2016) reported that there are 205,709 restaurants in Thailand, with the leading in Bangkok area with around 61,488 restaurants or 29.89 percent, following by Chiang Mai (province in northern Thailand) at 12,849 restaurants or 6.34 percent. Somehow, according to the previous report that was conducted by the Global Agricultural Information Network (GAIN, 2018), it is said that there are around 100,000 restaurant establishments in Thailand which has majority in Bangkok by 44 per cents or around



44,000 restaurants, followed by Southern part of Thailand at 22 per cents, the Eastern regions at 15 per cents and the Northern part of Thailand at mere 6 per cents or around 6,000 restaurants.

Restaurant's customers sometimes expect more than just the food; they need good service, attractive and unique dish presentation, and atmosphere, which play key roles in causing customer satisfaction. Upscale restaurants are the type that aims to respond to this kind of expectation as they recognize the significance of these integrations, and thus they try to concern and compete on factors such as decoration, ambiance, and capable staff trained to provide high value to increase customer experience and gain customer satisfaction. When effectively used, these factors can become the barrier of entry for upscale restaurants in terms of switching intention of customers, because if customers don't satisfy with what they want, they are more than willing to switch the brand at any time. Therefore, upscale restaurant is taken to study in this research to help identifying the ways to improve customer loyalty, decrease customers' switching intention, and increase in customers' revisit intention. In other words, the purpose of the research is:

“to investigate the factors that influence customers' revisit intention of upscale restaurants”.

To attend to this research objective, a stimulus-organism-response (SOR) framework is proposed, which according to Tan (2017), it can be traced to Mehrabian and Russel. Fundamentally, the model is parsimonious, which fits a criterion for a good theory. The theory explains that what causes consumers to respond positively i.e. experience sharing and revisit intention is the favorable organisms formed as a result of the stimuli. In the literature review section, the factors of SOR configuration are discussed which lead to the hypotheses being raised.

2. LITERATURE REVIEW

a. Restaurant context

In straightforward term, the types of eatery businesses will simply be identified primarily based on the character of service in terms of speed and activity orientation; specifically, as fast service, fast casual, family or midscale, moderate or theme and fine dining restaurant. The definitions of different restaurant terms are given in Reynolds and McClusky (2013) such as (1) moderate or theme-style; this type usually depends on a unique concept, and is enhanced with different ambiance in order to attract and call for a broad market; (2) fine dining, which is a restaurant type that provides the customers with the exclusivity of restaurant atmosphere and menu in order to maximize customers' overall dining experience. This research studies the consumer perceptions of the upscale restaurants located in Northern Thailand which includes moderate or theme-style and fine-dining.

b. Hypotheses development

Positive behavior intention, i.e. revisit or repurchase intention, of the customers is a good sign for restaurant operators, as it can significantly influence business profit and induce customers to participate in sharing their experiences with the brand in social media platform of brand



communities (Tan, 2017). In view of these understanding and the available empirical evidences as shown above, hypothesis 1 is assumed:

H1: Customer revisit intention has an effect on experience sharing.

Previous studies suggested that satisfaction of customer can be one of the factors that influence revisit intention, as the feeling of satisfaction can predict the intention of customer to come back for dining again or switching the restaurant later in the future (Kim et al. 2013). Also, brand trust, which can be defined as “projecting the rationality for the customer to stand behind the restaurant without regret,” is considered as a powerful influential of different behavioral outcomes. The concept of brand trust is about the rely of the customers in brand performance, and it happens after consuming what the firm offers; therefore brand trust is assumed to have significant effect on revisit intention (Alana and Kabadayi, 2014). For testing this, the following hypotheses are proposed:

H2: Customer satisfaction has an effect on revisit intention

H3: Brand trust has an effect on revisit intention

When customers are satisfied with the products and services, they tend to share experiences i.e. through positive word of mouth (Liu et al. 2018). They likewise found that brand trust or consumer’s trust in a brand can cause the customers to share information of the brand to others. In view of the above discussions, the following two hypothesizes are proposed based on the thought that if customers feel satisfy or trust in brand, he or she might share good experiences:

H4: customer satisfaction has an effect on experience sharing

H5: brand trust has an effect on experience sharing.

Apart from H2-H5 articulating the roles of customer satisfaction and brand trust, which are important organism in the SOR (Stimuli-Organism-Response), perceived values in the attribute domains of economics, functional and hedonic are equally important, as they are the fundamental reasons for customers in selecting or continuing in their choices (Line, Hanks and Kim, 2016). The perceived customer values – economics, hedonics, functional – thus, according to customer-brand relationship theory (Xie, Peng and Huan, 2014), should also lead to brand trust. In view of these empirical supports, the following hypotheses are stated:

H6: economics value has an effect on customer satisfaction.

H7: hedonic value has an effect on customer satisfaction.

H8: functional value has an effect on customer satisfaction.

H9: economics value has an effect on brand trust

H10: functional value has an effect on brand trust

H11: brand image has an effect on brand trust

Based on the definition of customer value, which is “overall evaluation of customers towards product or service utility based on the perception in what is given and what is received” (Kim et al. 2013), the stimuli thus should be reckoned to play significant roles in explaining the variances of the customer value. Shown in H12-H22 state these inferences.



- H12: service quality has an effect on economics value
- H13: food quality has an effect on economics value
- H14: attitude towards restaurant has an effect on economics value
- H15: Restaurant atmosphere has an effect on economics value
- H16: Social media induced norm has an effect on hedonic value.
- H17: Restaurant atmosphere has an effect on hedonic value
- H18: Attitude towards restaurant has an effect on hedonic value
- H19: Service quality has an effect on function value
- H20: Food quality has an effect on function value
- H21: Restaurant atmosphere has an effect on function value
- H22: Attitude towards restaurant has an effect on function value

Apart from the role of stimuli on customer value, it also has significant impact on another aspect of organism, namely brand image (Tan, 2017). Brand image can also be affected by other factors such as individuals' attitudes and subjective norms or from what other people's sharing on social media. Therefore, after individuals receive and learn on what they see on social media such as pictures, it will facilitate the attitude formation of customers which can further influence brand image. In view of these stimuli-induced brand image impacts, hypotheses H23-H26 are raised for the study:

- H23: Food quality has an effect on brand image
- H24: Restaurant atmosphere has an effect on brand image
- H25: Attitude towards restaurant has an effect on brand image
- H26: Social media induced norm has an effect on brand image

In sum, the conceptual model shown in Figure 1 is developed which systematically integrates the twenty-six hypotheses raised in the literature review section. The model is SOR in configuration.

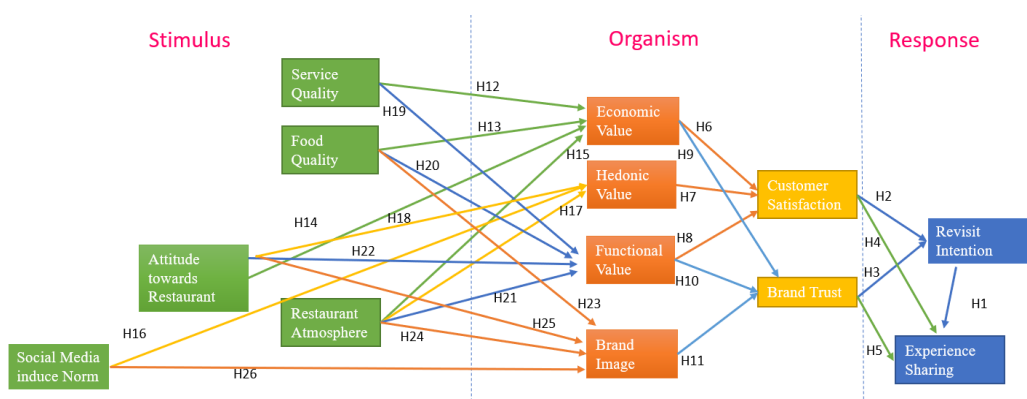


Figure 1: Conceptual model

3.METHODOLOGY

A questionnaire-based survey approach is used as the means for data collection. The data were collected from the customers who have visited any of the upscale restaurants located anywhere in northern Thailand. Thirteen constructs shown to have met the reliability index (Cronbach's Alpha)



(exceeding 0.80) and convergent and divergent validity requirements were used in the multivariate statistical analysis. The analysis exploited SPSS and AMOS. A structural equation modeling (SEM) analysis is emphasized by use of AMOS which targets to study the model fitness of the actual data with the proposed conceptual model. As it is in no way researchers can systematically identify the whereabouts of the customers, both online and self-administered survey means are employed, with the assistance of snowballing through recommendations and passing on to one another.

4. RESULT

The data analyses were based on the 402 valid sample responses obtained from the customers who had visited upscale restaurants. Prior to any meaningful statistical analyses, the criteria for convergent, divergent validity, reliability analyses must first be met (Tan, 2018). Table 1 provides the evidences of the research quality: The diagonal is the square root of the “total variance extracted (TVE)” from the data reduction, and is shown exceeding the cross-correlations coefficients of the 13 constructs, and with TVE over 0.50, the discriminant validity is established. On top of that, with additional reliability (exceeding 0.80 on reliability index), convergent reliability is also ensured.

Table 1: Convergent and discriminant validity, and reliability analyses

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	TVE	Reliability Index
V1	0.84193													0.70884	0.862
V2	0.728	0.82585												0.68203	0.844
V3	0.648	0.638	0.85488											0.73082	0.877
V4	0.696	0.667	0.655	0.87517										0.76593	0.846
V5	0.674	0.668	0.711	0.677	0.91897									0.84451	0.908
V6	0.643	0.599	0.609	0.636	0.593	0.91329								0.8341	0.801
V7	0.606	0.644	0.694	0.576	0.695	0.593	0.89617							0.80312	0.877
V8	0.55	0.576	0.621	0.558	0.611	0.585	0.615	0.91969						0.84583	0.823
V9	0.672	0.694	0.64	0.675	0.652	0.629	0.676	0.68	0.93454					0.87336	0.855
V10	0.587	0.655	0.694	0.618	0.645	0.582	0.71	0.642	0.751	0.90527				0.81951	0.89
V11	0.336	0.375	0.449	0.396	0.403	0.412	0.456	0.616	0.406	0.485	0.96061			0.92278	0.916
V12	0.677	0.717	0.674	0.694	0.746	0.628	0.683	0.694	0.803	0.724	0.428	0.91567		0.83846	0.903
V13	0.633	0.625	0.636	0.628	0.69	0.595	0.611	0.667	0.739	0.63	0.394	0.813	0.89632	0.80339	0.877

Note for table 1: V1 food quality, V2 service quality, V3 restaurant atmosphere, V4 functional value, V5 hedonic value, V6 economic value, V7 attitude, V8 experience sharing, V9 brand trust, V10 brand image, V11 social media induced norm, V12 customer satisfaction, V13 revisit intention. Table 2 provides a very comprehensive detail of the construct profile and the cross-group comparisons, which have important implications to the restaurant owners. The square boxes highlight areas of significant differences identified by means of either t-test (for 2 variables comparison) or ANOVA (for 3 or more variables comparisons). In sequence down the rows of Table 2, the male customers show higher hedonic value perception than the female counterparts. The Thai customers perceive more favorably than the non-Thai customers on social media-induced norm, attitude, service quality, brand image, functional value and experience sharing. The Thai customers seem to be active on social media engagements, and the marketers could reinforce on this domain.



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Table 2: Descriptive profiles and perceptual value of constructs, and ANOVA, t-test results

Descriptive	Frequency	Percentage	Stimuli					Organism					Response		
			Social Media Induced Norm	Attitude towards restaurant	Restaurant Atmosphere	Food Quality	Service Quality	Brand Trust	Brand Image	Customer Satisfaction	Functional Value	Hedonic Value	Economic Value	Experience Sharing	Revisit Intention
Mean			3.69	4.02	3.86	4.03	4.06	4.05	3.9	4.11	3.99	4.04	3.91	3.83	4.04
Standard Deviation			0.96	0.77	0.78	0.77	0.75	0.86	0.79	0.84	0.73	0.89	0.74	0.74	0.85
Gender															
Male	219	54.5	3.63	4.04	3.88	4.1	4.1	4.11	3.93	4.19	4.03	4.13	3.91	3.82	4.08
Female	183	45.5	3.78	3.99	3.83	3.96	4.02	3.99	3.86	4.02	3.94	3.95	3.91	3.84	4
Age															
19-29	162	40.3	3.74	3.99	3.81	4.08	4.07	4.07	3.85	4.09	3.99	4	4.01	3.89	4.04
30-39	111	27.6	3.68	4.01	3.86	4.06	4.12	4.14	3.88	4.22	4.01	4.14	3.87	3.89	4.19
40-49	79	19.7	3.65	3.98	3.93	3.96	3.94	3.94	3.96	4.06	3.96	4.09	3.8	3.71	3.98
Above 50	50	12.4	3.64	4.16	3.87	3.94	4.11	4	3.98	4.05	3.99	3.92	3.87	3.67	3.88
Nationality															
Thai	244	60.7	3.89	4.09	3.91	4.07	4.14	4.1	3.98	4.13	4.05	4.07	3.96	3.93	4.04
Non-Thai	158	39.3	3.38	3.91	3.78	3.98	3.94	3.97	3.76	4.09	3.89	4.01	3.84	3.67	4.05
Education															
Less than high-school	27	6.7	3.48	3.95	3.86	3.76	3.94	3.57	3.67	3.77	3.88	3.84	3.7	3.51	3.62
High-school	39	9.7	3.72	3.85	3.8	4.01	4	3.93	3.81	4.04	3.99	3.83	3.88	3.96	3.89
College	70	17.4	3.74	4.01	3.8	3.86	3.87	3.92	3.86	3.96	3.82	3.92	3.82	3.76	3.97
Bachelor	173	43	3.68	3.99	3.82	4.05	4.12	4.1	3.88	4.16	4.01	4.09	3.93	3.84	4.06
Post-graduate	93	23.1	3.73	4.16	3.99	4.21	4.17	4.26	4.06	4.27	4.1	4.21	4.02	3.9	4.26
Occupation															
Student	94	23.4	3.66	3.94	3.8	4.12	4.11	4.12	3.82	4.09	4.01	3.99	3.96	3.85	4.02
Employed	214	53.2	3.70	4.04	3.86	4.01	4.04	4.01	3.9	4.11	3.97	4.07	3.88	3.83	4.05
Other	94	23.4	3.72	4.05	3.91	4	4.07	4.06	3.97	4.13	4.01	4.03	3.93	3.8	4.05
Income															
Less than 10,000 Baht	104	25.9	3.76	4.04	3.9	4.12	4.21	4.14	3.89	4.19	4.08	4.04	3.98	3.97	4.04
10-15,000 Baht	57	14.2	3.79	4.02	3.82	4	3.89	3.99	3.89	3.94	3.96	4.01	3.91	3.89	3.84
15-30,000 Baht	119	29.6	3.66	3.97	3.82	3.92	4.01	4	3.85	4.12	3.94	4.07	3.9	3.76	4.1
30-60,000 Baht	75	18.7	3.77	3.96	3.78	3.94	3.99	3.97	3.86	4.09	3.91	4.01	3.78	3.83	4.01
Above 60,000 Baht	47	11.7	3.88	4.18	4.03	4.3	4.21	4.26	4.14	4.23	4.07	4.1	4.04	3.62	4.19
Dining Frequency															
Not frequent/occasional	193	48	3.61	4.05	3.85	4.07	4.11	4.04	3.89	4.14	4.03	4.09	3.91	3.78	4.03
Frequently	158	39.3	3.75	3.98	3.87	4	4.07	4.11	3.94	4.12	3.97	4.04	3.95	3.89	4.07
Very frequently	51	12.7	3.86	3.99	3.83	3.97	3.88	3.92	3.77	3.96	3.88	3.87	3.8	3.8	4
Dining Accompany															
By yourself	36	9	3.67	3.62	3.7	3.61	3.43	3.5	3.49	3.53	3.667	3.57	3.75	3.59	3.54
With friends	122	30.3	3.58	3.99	3.85	4.02	4.05	4.07	3.85	4.12	3.96	4	3.94	3.83	4
With family	111	27.6	3.85	4.08	3.92	4.03	4.13	4.09	4	4.15	4.13	4.1	3.93	3.83	4.01
With family and friends	111	27.6	3.62	4.12	3.83	4.15	4.2	4.15	3.96	4.26	3.96	4.18	3.88	3.92	4.28
Other	22	5.5	3.93	3.95	3.93	4.19	4.19	4.13	4.01	4.13	4.13	4.1	4.11	3.72	4.07
Dining Period															
Workday	94	23.4	3.78	4.14	3.99	4.1	4.17	4.1	3.97	4.23	4.01	4.13	4	3.98	4.18
Weekend	182	45.3	3.57	3.89	3.73	4.03	4.01	3.98	3.78	4.08	3.92	4.03	3.86	3.79	4.05
Holiday	126	31.3	3.81	4.11	3.93	3.98	4.05	4.12	4.01	4.07	4.06	4	3.93	3.76	3.93
Dining Place															
Close to home	230	57.2	3.67	3.96	3.77	4	4.04	4.04	3.85	4.11	3.93	3.97	3.89	3.8	4.06
Far away	172	42.8	3.86	4.09	3.97	4.07	4.1	4.07	3.96	4.12	4.07	4.15	3.95	3.86	4.02
Parking difficulty															
Yes	74	18.4	3.57	3.61	3.48	3.68	3.66	3.69	3.48	3.81	3.72	3.59	3.59	3.64	3.66
No	328	81.6	3.72	4.11	3.94	4.11	4.16	4.13	3.99	4.18	4.05	4.15	3.98	3.87	4.13

Significant difference across the (demographic or psychographic) variables.
 Generally the perceptions value > 4.0 (out of the five Likert-Scale)

On the education aspect, the customers with higher education tend to have more favorable perceptions on food quality, brand trust, customer satisfaction and revisit. Income wise, the customers with monthly income less than 10,000 Baht and over 60,000 Baht tend to have more favorable perceptions on food and service quality in particular. When customers dine-in the restaurants for meals by themselves, they tend to have lower level of perceptions across all constructs. Thus, it is important restaurants provide a promotional emphasis or an ambience that promotes the interactions with friends and families. The weekend customers seem to provide lower level of perceptions on social media-induced norm, attitude, restaurant atmosphere and brand image; nevertheless, the exact and subtle reasons can only be comprehended by means of a more-careful observation and interview approach of research study; partly, it could be a negative crowding effect. Customers who select restaurants further away from home tend to enjoy hedonically and conceive better restaurant atmosphere more than those selecting restaurants closer to home. The parking space allocation is a very significant variable, and those who judge difficulty in parking provide perceptions and attitudinal responses at much lower level than the customers who consider appropriateness in parking.

By means of multiple regressions and structural equation modeling (SEM) analysis, only 2 hypotheses are not supported while the rests met the conceptions given in the literature review. The two unsupported hypotheses are minor detail of the SOR. Overall, the SOR configuration is confirmed, and the hypothesis structure thus can be separated into $S \rightarrow O$, and $O \rightarrow R$, in sequence.



Table 3: Hypotheses testing result.

Dependent Variable	Predictors	Beta	t-value	p-value	Hypothesis Testing Outcome	
H1	Experience sharing	Revisit intention	0.228	3.783	0.000	Supported
H2	Revisit intention	Customer satisfaction	0.616	13.01	0.000	Supported
H3	Revisit intention	Brand trust	0.245	5.162	0.000	Supported
H4	Experience sharing	Customer satisfaction	0.278	4.084	0.000	Supported
H5	Experience sharing	Brand trust	0.289	4.914	0.000	Supported
H6	Customer satisfaction	Economic value	0.19	4.676	0.000	Supported
H7	Customer satisfaction	Hedonic value	0.452	10.614	0.000	Supported
H8	Customer satisfaction	Function value	0.267	6.014	0.000	Supported
H9	Brand trust	Economic value	0.182	4.527	0.000	Supported
H10	Brand trust	Function value	0.26	6.255	0.000	Supported
H11	Brand trust	Brand image	0.484	12.274	0.000	Supported
H12	Economic value	Service quality	0.127	2.249	0.025	Supported
H13	Economic value	Food quality	0.309	5.597	0.000	Supported
H14	Economic value	Attitude towards restaurant	0.186	3.517	0.000	Supported
H15	Economic value	Restaurant atmosphere	0.199	3.678	0.000	Supported
H16	Hedonic value	Social media induced norm	0.037	0.986	0.325	not Supported
H17	Hedonic value	Restaurant atmosphere	0.433	9.448	0.000	Supported
H18	Hedonic value	Attitude towards restaurant	0.378	8.214	0.000	Supported
H19	Functional value	Service quality	0.229	4.418	0.000	Supported
H20	Functional value	Food quality	0.331	6.517	0.000	Supported
H21	Functional value	Restaurant atmosphere	0.262	5.266	0.000	Supported
H22	Functional value	Attitude towards restaurant	0.046	0.938	0.349	not Supported
H23	Brand image	Food quality	0.127	2.959	0.003	Supported
H24	Brand image	Restaurant atmosphere	0.296	6.108	0.000	Supported
H25	Brand image	Attitude towards restaurant	0.362	7.77	0.000	Supported
H26	Brand image	Social media induced norm	0.145	4.004	0.000	Supported

5. DISCUSSION AND CONCLUSION

This study thus fulfills the research objective stated in the Introductory section, and provides the empirical evidences shown in Figure 2 to support the utility of the SOR model. The significant predicting ability of social media-induced norm in influencing customer attitude and thus towards brand trust, satisfaction and social media sharing, is also reflecting the accelerating trend of social media. The SOR model provides simple but practical implications: if restaurants do a good job in the stimuli effort, the customers would have formed favorable organisms and responses.

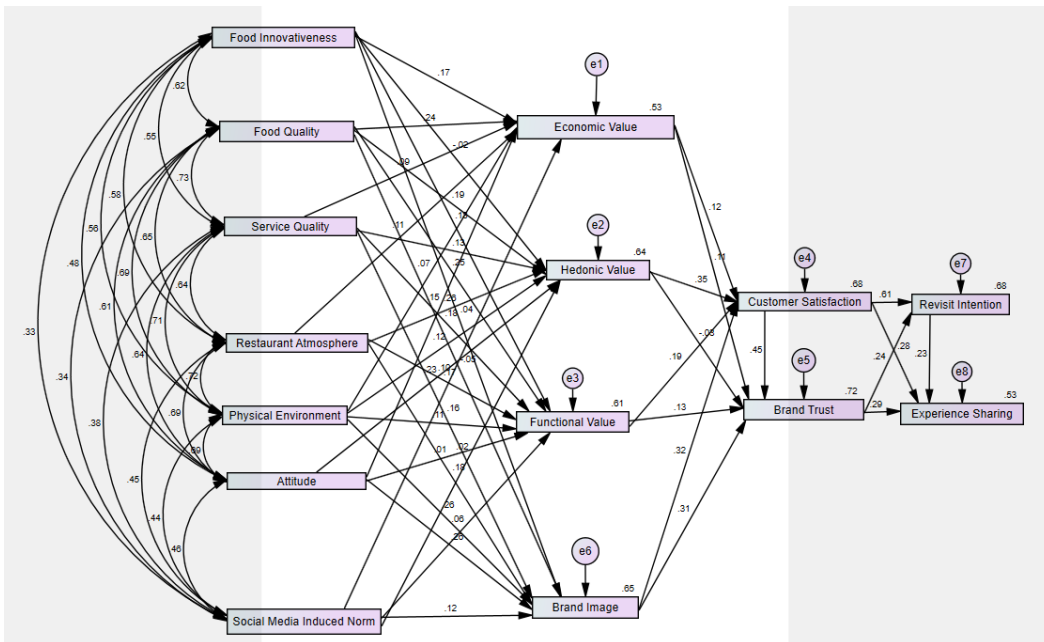


Figure 2: The structural equation model

6. ACKNOWLEDGEMENT

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