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Psychometric Properties of the Questionnaire on Factors that Drive Consumers' Dine Out Intention during Transition of Covid-19 Endemic in Malaysia

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Abstract

The Covid-19 pandemic created both a public health and an economic crisis in the entire world, including the foodservice industry, where dining out was not allowed. As a result, many restauranteurs shifted their business model to take-away and delivery service options. Later, the government reopened all closed industries, including reopening restaurant dining services. his move is critical to the economy's recovery. However, concerns have arisen among consumers, especially in terms of their safety, as the virus is still around even though it is controllable. Hence, this study aims to examine the internal consistency of the questionnaire and to determine the factors that drive consumers' dine out intention during the Covid-19 endemic transition in Malaysia. The questionnaire was distributed via social media platforms between May and July 2022. The data were then subjected to Rasch analysis to determine the instrument's validity and later subjected to SPSS software (ver. 25) for correlation analyses. Rasch analysis revealed that the instrument is unidimensional and has Cronbach alpha of 0.92 with item reliability of 0.94 and person reliability of 0.87. However, out of 24 items, 22 items fulfilled all the item fit criteria. Further analyses revealed that all independent variables, namely restaurant safety measures, contactless dining and restaurant transparency, are strongly associated with the intention to dine out. The study showed that the questionnaire used is valid and reliable and can be extended to another study. The preliminary findings provide significant implications for the restauranteurs in planning and improving their services in the reopening of their food service establishment in Malaysia.

Keywords: Covid-19, Dine Out Intention, Restaurant Safety Measures, Contactless Dining, Restaurant Transparency

Introduction

COVID-19, a disease caused by a novel coronavirus, has recently spread worldwide. The outbreak of COVID-19 has changed our lives. The landscape of the food service business has

also transformed. All industries, including restaurants, were closed at the pandemic's beginning. Then, restaurants reopen in phases and set strict conditions to control the spread of Covid-19. However, everything happens unexpectedly because the infection happens silently and is not physically visible. Restaurants prone to cluster infections have sparked widespread concern among the community during the pandemic (Zhong et al., 2021). Besides, Bove and Benoit (2020) stated that restaurants must cope with consumers' judgments on whether restaurants are safe or not for them to dine in since everyone is very aware and concerned about health, including personal safety, when they are outside. When they are outside, the chances of being infected are high.

As a result of the COVID-19 pandemic, consumers lessen their desire to dine out because they do not want to be exposed to physical threats. However, beginning on 1st April 2022, the Malaysian government decided to move the Covid-19 pandemic to the transition stage (Salim, 2022) before ending the endemic stage at the end of the year (Hassan, 2022). This move resulted in opening all industries, including the foodservice establishments. However, past experience in facing the Covid-19 pandemic triggers customers to take extra precautions when they are exposed to the public. They also need assurance from the public that precautions are being taken and practised to ensure the customers' safety. According to Starr (2020), using a reservations mode or call-ahead seats and technological solutions to limit person-to-person interaction is the best way to go. Since previous studies have provided limited evidence about how contactless technologies can reduce person-to-person interaction, this study will examine their relationships. Besides, public health restrictions and social distancing measures influence consumer dining experiences and their comfort when with other diners (Tuzovic et al., 2021).

Previous studies have established a strong link between restaurant safety measures and the dine out intention during pandemic conditions (Rizou et al., 2020; Wei et al., 2021; 2022; Soon et al., 2021; Zhong et al., 2021). Safety measures have been defined as a precaution to improve or assure safety or protection from harm (Safety Measures, 2022). Hence, restaurant safety measures play a significant role in consumers' decision making (Novelli et al., 2018). In other words, customers would feel safer and more inclined to dine out in a restaurant that follows proper sanitation practices and maintains social distance (Zhong et al., 2021).

It is known that if someone is infected with the coronavirus, they can contaminate the surroundings and anything in that area, which can easily lead to person-to-person transmission (Shahbaz et al., 2020). Besides, individuals may be exposed to the virus if they come into contact with a contaminated surface or object and become infected through the mouth, nose, or eyes (Pressman et al., 2020). Therefore, as dining reopens, restaurant owners and operators have been compelled to adapt, pivot, and move swiftly to meet government rules and consumer expectations. Incorporating or integrating contactless dining technology can be one of the alternatives to limiting person-to-person interaction (Turvey, 2021). As mentioned by Wei et al (2021), person-to-person interaction can be reduced by leveraging technological solutions such as mobile ordering and menu tablets, notifications on arrival for seats, and contactless payment options.

Consumers also demand that restaurant owners be transparent to ensure that the safety of the consumers are being prioritized. Transparency could improve customers' knowledge of

asymmetry and perceived risks by providing specifics about products and service methods (Hustvedt and Bernard, 2010). Transparency is important in risk-based decision-making (Yost and Cheng, 2021). The term "transparency" refers to "the visibility and accessibility of information, particularly about commercial activities" (Transparent, 2010). In this aspect, transparency is a critical strategy for success since it allows restaurants to give key food and health-related information while also removing concerns about infection when dining out (Yost and Cheng, 2021).

Based on the review of the literature, there are four variables, namely the independent variables of restaurant safety measures, contactless dining and transparency, while the dependent variable is the consumer's intention to dine out developed from (Wei et al., 2021; Zhong et al., 2021; Yost and Cheng, 2021). The framework of the study is shown in Diagram 1.

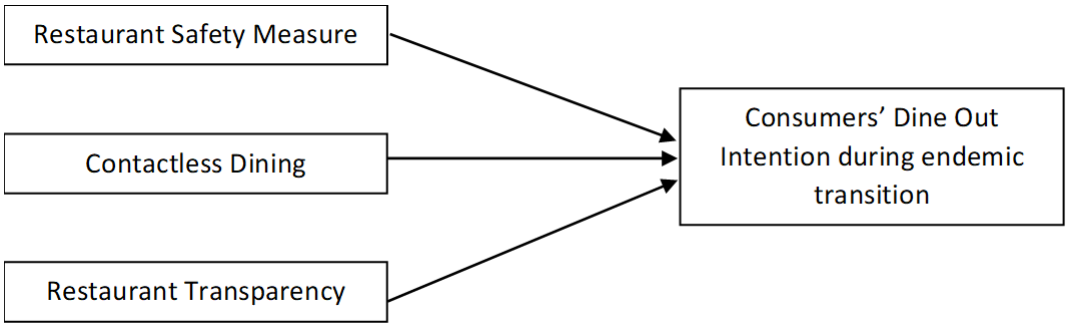

Diagram 1: Framework of the study

Hence, the findings from this study can help strengthen the theoretical foundation in understanding people's dining out intentions and provide insight into how managers can adapt their company strategies to the new normal. But, more importantly, we believe that the value of our research will remain even after the pandemic. Therefore, the study aims to examine the internal consistency of the questionnaire developed and later to evaluate the relationship between restaurant safety measures, contactless dining, and restaurant transparency toward consumers' dine-out intention in pandemic conditions.

Methodology

Research instrument

The measurement items for each construct were adapted from previous studies and modified to fit the research context. Questionnaire indicators of restaurant safety measures, contactless dining and restaurant transparency were adapted from Zhong et al (2021); Wei et al (2021); Yost & Cheng (2021), respectively. While the measurement indicators for consumers' dine out intention were adapted from (Wei et al., 2021). This questionnaire included 24 items using a measurement scale of a 5-point Likert scale that ranged from scale 1 (strongly disagree) to scale 5 (strongly agree).

Sample and Data Collection

Non-probability sampling using the convenience method was employed in this study. The data were distributed via online platforms (social media) such as WhatsApp, Telegram, and Instagram between April and July 2022. Since the research was proposed based on the

circumstances surrounding the Covid-19 pandemic in Malaysia, only respondents aged 18 and above and had experienced dine out during the reopening of the restaurants in the past six months were asked to respond to the questionnaire. A total of 104 responses were collected and subjected to further analyses.

Data Analyses

The data's descriptive statistical analyses (mean and standard deviation) were conducted. The data did not follow a normal distribution; hence non-parametric analyses, that is crosstab analysis was conducted to examine the associations between independent and dependent variables.

Prior to crosstab analysis, Rasch analysis was performed using Bond and Fox software to determine the validity of the instrument. In addition to determining the Cronbach alpha, item and person reliability of the questionnaire, the item fit was also determined. Only items with positive point measure correlation (PMC), the value of Infit and Outfit Mean Square (MNSQ) is between 0.50 and +1.50, and z-Std within ±2.00 are accepted. The Principal Component Analysis Residue (PCAR) was examined to ensure that the instrument is unidimensional.

Ethical Aspects

This study was approved by the Research Ethics Committee of the university (Ref: FPHP/FERC/196/2022). All respondents were informed about the objectives and procedures of this study. Only those who agreed to participate in the study were asked to complete the questionnaire.

Findings

Profiles of Respondents

As shown in Table 1, of the 104 respondents, 91 were females (87.5%), and 13 were males (12.5%). The majority of the respondents were young adults aged 23 to 27 (65.4%) and 18 to 22 (12.5%) with a monthly income level of less than RM1500 (66.3%). During the pandemic, around 60% of the respondents dined out only once per week, and 26% dined out 3 – 4 times per week.

Table 1
Descriptive Statistics

		n.	%
Gender	Male	13	12.5
	Female	91	87.5
Age	18-22 years old	20	19.2
	23-27 years old	68	65.4
	28-32 years old	10	9.6
	33-37 years old	2	1.9
	43 years old and above	4	3.8
Monthly Income	RM1,500 and below	69	66.3
	RM1,600-RM2,000	14	13.5
	RM2,100-RM2,500	9	8.7
	RM2,600-RM3,000	2	1.9
	RM3,000 and above	10	9.6
Frequency of Dining Out	1-2 times a week	62	59.6
	3-4 times a week	27	26
	5-6 times a week	9	8.7
	Once a day and above	6	5.8

Psychometric properties of the instrument

Item and Person Summary Statistics

Table 2 represents item and person summary statistics indicating that item reliability and person reliability indices are acceptable, exceeding 0.80. Similarly, the instrument demonstrated a good internal consistency with a Cronbach alpha coefficient of 0.92. Meanwhile, the number of items and person strata were calculated using the following equation ((https://www.rasch.org/rmt/rmt163f.htm):

Difficulty strata, H = (4G + 1)/3; where G is Separation index

It is shown that the instrument used is able to segregate the respondents into 4 different strata, while the items can be segregated into 6 strata. It was shown that the reliability index of equal to or greater than 0.8 and the separation index of equal to or greater than 2 are good indicators for a valid and reliable measurement scale (Linacre, 2007).

Table 2

Summary Statistics

```
INPUT: 104 Persons  24 Items  MEASURED: 104 Persons  24 Items  5 CATS       1.0.0
--------------------------------------------------------------------------------

     SUMMARY OF 96 MEASURED (NON-EXTREME) Persons
+------------------------------------------------------------------------------+
|           RAW                          MODEL         INFIT        OUTFIT     |
|          SCORE     COUNT     MEASURE   ERROR      MNSQ   ZSTD   MNSQ   ZSTD |
|------------------------------------------------------------------------------|
| MEAN      99.6      24.0        1.82     .33      1.07    -.1   1.03    -.2 |
| S.D.      11.6        .0        1.12     .13       .63    1.9    .59    1.8 |
| MAX.     119.0      24.0        5.07    1.01      3.30    4.7   3.05    4.0 |
| MIN.      69.0      24.0        -.25     .23       .19   -4.4    .20   -4.3 |
|------------------------------------------------------------------------------|
| REAL RMSE    .40  ADJ.SD    1.04  SEPARATION  2.58  Person RELIABILITY  .87 |
|MODEL RMSE    .35  ADJ.SD    1.06  SEPARATION  2.99  Person RELIABILITY  .90 |
| S.E. OF Person MEAN = .11                                                    |
+------------------------------------------------------------------------------+
  MAXIMUM EXTREME SCORE:      8 Persons

     SUMMARY OF 104 MEASURED (EXTREME AND NON-EXTREME) Persons
+------------------------------------------------------------------------------+
|           RAW                          MODEL         INFIT        OUTFIT     |
|          SCORE     COUNT     MEASURE   ERROR      MNSQ   ZSTD   MNSQ   ZSTD |
|------------------------------------------------------------------------------|
| MEAN     101.2      24.0        2.16     .44                                 |
| S.D.      12.4        .0        1.61     .42                                 |
| MAX.     120.0      24.0        6.29    1.83                                 |
| MIN.      69.0      24.0        -.25     .23                                 |
|------------------------------------------------------------------------------|
| REAL RMSE    .64  ADJ.SD    1.47  SEPARATION  2.31  Person RELIABILITY  .84 |
|MODEL RMSE    .61  ADJ.SD    1.49  SEPARATION  2.43  Person RELIABILITY  .86 |
| S.E. OF Person MEAN = .16                                                    |
+------------------------------------------------------------------------------+
Person RAW SCORE-TO-MEASURE CORRELATION = .90
CRONBACH ALPHA (KR-20) Person RAW SCORE RELIABILITY = .92

     SUMMARY OF 24 MEASURED (NON-EXTREME) Items
+------------------------------------------------------------------------------+
|           RAW                          MODEL         INFIT        OUTFIT     |
|          SCORE     COUNT     MEASURE   ERROR      MNSQ   ZSTD   MNSQ   ZSTD |
|------------------------------------------------------------------------------|
| MEAN     398.6      96.0         .00     .15       .99    -.1   1.03     .2 |
| S.D.      30.8        .0         .65     .02       .23    1.5    .27    1.5 |
| MAX.     448.0      96.0        1.31     .20      1.69    3.9   1.87    4.6 |
| MIN.     326.0      96.0       -1.24     .12       .65   -2.6    .61   -2.6 |
|------------------------------------------------------------------------------|
| REAL RMSE    .16  ADJ.SD     .63  SEPARATION  4.04  Item   RELIABILITY  .94 |
|MODEL RMSE    .15  ADJ.SD     .63  SEPARATION  4.21  Item   RELIABILITY  .95 |
| S.E. OF Item MEAN = .14                                                      |
+------------------------------------------------------------------------------+
UMEAN=.000 USCALE=1.000
Item RAW SCORE-TO-MEASURE CORRELATION = -.99
2304 DATA POINTS. APPROXIMATE LOG-LIKELIHOOD CHI-SQUARE: 4358.80
```

Item Fit

Table 3 represents item fit. All items had positive PMC values. However, one item (B3) had an Infit MNSQ value exceeding 1.50, while two items (B3 and D5) had ZSTD values greater than ±2.00. Therefore, 22 items fit the Rasch measurement model, while items B3 and D5 need further revision. As mentioned by Linacre (2006), any item with an MNSQ value exceeding the range of 0.5 to 1.5 and z-Std values outside the ±2.00 range are considered a misfit to the model.

Table 3
Item Fit

INPUT: 104 Persons 24 Items MEASURED: 104 Persons 24 Items 5 CATS 1.0.0

Person: REAL SEP.: 2.58 REL.: .87 ... Item: REAL SEP.: 4.04 REL.: .94

Item STATISTICS: MISFIT ORDER

ENTRY NUMBER	RAW SCORE	COUNT	MEASURE	MODEL S.E.	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD	PTMEA CORR.	EXACT MATCH OBS%	EXACT MATCH EXP%	Item
3	354	96	.87	.13	1.69	3.9	1.87	4.6	A .52	34.4	48.7	B3
19	367	96	.66	.13	1.10	.7	1.36	2.1	B .53	42.7	49.1	E1
10	419	96	-.38	.16	1.27	1.6	1.33	1.5	C .41	60.4	57.9	C4
23	411	96	-.19	.15	1.14	.9	1.28	1.4	D .46	57.3	55.8	E5
5	395	96	.15	.14	1.28	1.7	1.20	1.1	E .54	51.0	52.2	B5
11	424	96	-.50	.16	1.21	1.3	1.17	.8	F .43	57.3	58.6	C5
6	398	96	.09	.14	1.18	1.2	1.09	.5	G .56	52.1	53.1	B6
7	414	96	-.26	.15	1.17	1.1	1.16	.8	H .46	55.2	56.1	C1
20	380	96	.43	.13	.75	-1.7	1.16	1.0	I .60	56.3	50.8	E2
8	413	96	-.24	.15	1.07	.5	1.14	.7	J .48	61.5	56.0	C2
15	326	96	1.31	.12	.94	-.4	1.08	.6	K .69	44.8	46.4	D3
12	422	96	-.45	.16	1.07	.5	1.08	.4	L .44	59.4	58.4	C6
14	350	96	.94	.13	.99	.0	.97	-.1	l .66	51.0	48.5	D2
1	402	96	.00	.14	.85	-1.0	.97	-.1	k .57	65.6	53.9	B1
9	424	96	-.50	.16	.94	-.3	.82	-.8	j .50	55.2	58.6	C3
24	443	96	-1.06	.19	.79	-1.2	.93	-.1	i .44	69.8	66.5	E6
13	358	96	.81	.13	.87	-.9	.84	-1.0	h .67	53.1	48.8	D1
4	406	96	-.08	.15	.85	-1.0	.79	-1.2	g .58	62.5	54.2	B4
2	404	96	-.04	.15	.80	-1.4	.85	-.8	f .57	58.3	54.0	B2
21	448	96	-1.24	.20	.85	-.8	.83	-.5	e .43	71.9	70.2	E3
22	447	96	-1.21	.19	.80	-1.1	.70	-1.1	d .44	70.8	69.8	E4
18	388	96	.28	.14	.74	-1.8	.72	-1.7	c .64	57.3	51.3	D6
16	387	96	.30	.14	.73	-1.9	.71	-1.8	b .64	55.2	51.3	D4
17	386	96	.32	.14	.65	-2.6	.61	-2.6	a .68	58.3	51.2	D5
MEAN	398.6	96.0	.00	.15	.99	-.1	1.03	.2		56.7	55.0	
S.D.	30.8	.0	.65	.02	.23	1.5	.27	1.5		8.4	6.2	

Principal Component Analysis Residue (PCAR)

Unidimensionality is very important in psychometric terms to ensure the instrument developed would measure a single latent trait underlying the responses (Hattie, 1985) and ensure the soundness of the assessment in measuring the overall concept of the intended study (Ziegler & Hagemann, 2015). The Rasch analysis conducted revealed that the instrument has good unidimensionality (Table 4). The raw variance explained by measure was 62.9% which exceeded the minimum point of 40%, as required in the Rasch measurement model (Bond & Fox, 2013). Furthermore, the unexplained variance depicted by the first contrast was 4.3% which is below the recommended cut-off of 5%, hence dismissing multidimensionality. The findings confirmed the internal construct validity and the unidimensionality of the instrument.

Table 4

Item Fit

```
INPUT: 104 Persons  24 Items  MEASURED: 104 Persons  24 Items  5 CATS       1.0.0
--------------------------------------------------------------------------------

       STANDARDIZED RESIDUAL VARIANCE SCREE PLOT
Table of STANDARDIZED RESIDUAL variance (in Eigenvalue units)
                                             Empirical       Modeled
Total variance in observations     =         64.6 100.0%         100.0%
Variance explained by measures     =         40.6  62.9%          63.0%
Unexplained variance (total)       =         24.0  37.1% 100.0%   37.0%
Unexplned variance in 1st contrast =          4.3   6.7%  18.1%
Unexplned variance in 2nd contrast =          3.1   4.8%  12.9%
Unexplned variance in 3rd contrast =          2.2   3.3%   9.0%
Unexplned variance in 4th contrast =          1.8   2.7%   7.4%
Unexplned variance in 5th contrast =          1.3   2.0%   5.5%
```

Variable Map

The variable map or also known as the Wright map displays the distribution of persons (on the left side of the map) based on their ability from the most-able (bottom-most) to the least able (top-most) in endorsing items (Figure 1). It also displays the items based on difficulty levels.

Figure 1 represents the item variable map. As can be seen in the diagram, all items fall within logit measure of ±2.00, which can be regarded as easy to endorse items. Item D3 had the highest logit measure +1.31, which is much lower than the person's highest logit measure of +6.29. Item E3 had the lowest logit measure -1.24 which is much lower than the person's lowest logit measure of -0.25. As conclusion, out of 24, 18 items are easy to endorse by the respondent, while another 6 items are regarded as too easy to endorse items (below the person's lowest logit measures).

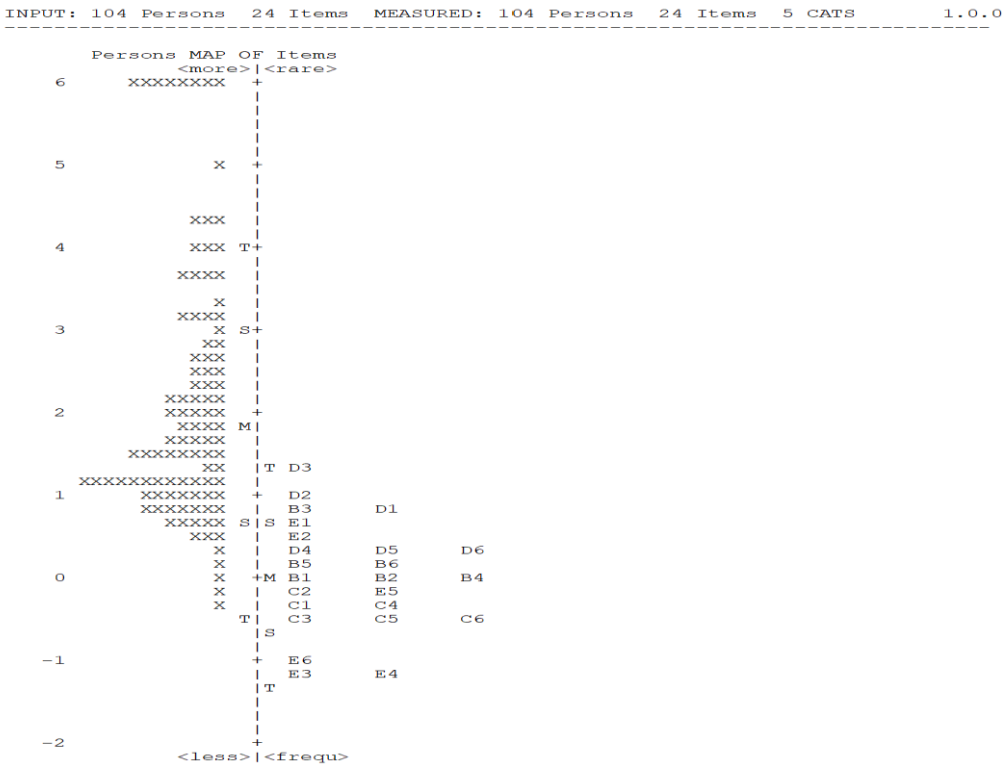

Figure 1: Variable map

Descriptive Statistics

Restaurant Safety Measure

Table 5 shows the mean and standard deviation for all six items on restaurant safety measures. The instrument measures restaurant safety measures with a minimum range from 3.79 (SD 1.196) to 4.29 (SD 0.832); this indicates strong agreement among the respondents towards the restaurant safety measures. As can be seen in Table 5, the highest mean score is 'Restaurant provides sanitising stations to customer' (M= 4.29, SD= .832), followed by 'Restaurants put signage and stickers to guide the customer to maintain social distancing' with a score (M= 4.27, SD= .779), and 'Restaurants ensure the use of face cover/masks for all staff and patrons' (M= 4.25, SD= .810). Nonetheless, the statement 'Restaurant staff check customer MySejahtera (fully vaccinated and low risk symptom) before entering' scored the lowest (M= 3.79, SD= 1.196).

Table 5
Restaurant Safety Measure descriptive analysis

No	Instrument	N	Mean	Standard Deviation
1	Restaurants ensure the use of face cover/masks for all staff and patrons.	104	4.25	0.810
2	Restaurants put signage and stickers to guide customer to maintain social distancing.	104	4.27	0.779
3	Restaurant staff check customer MySejahtera (fully vaccinated and low risk symptom) before entering.	104	3.79	1.196
4	Restaurant provides sanitising stations to customer.	104	4.29	0.832
5	Restaurant provides separate entry and exits for customer.	104	4.18	0.993
6	Restaurants staff sanitised the tables each time a customer leave.	104	4.21	0.982

Contactless Dining

Table 6 shows the mean and SD for six items on contactless dining. As shown in Table 4, the instrument measures contactless dining items had a strong agreement among respondents with scores between 4.36 (SD 0.762) and 4.46 (SD 0.723). Two statements were shown to have the highest mean score: ' Contactless servers decreasing the risk of spreading the virus.' (M = 4.46, SD = 0.723) and 'Contactless payment helps transactions done quickly.' (M = 4.46, SD = 0.762), followed by 'Contactless payment convenience to customer.' scored (M = 4.44, SD = 0.70). While 'Contactless ordering makes faster in the ordering process and reduces time.' The statement had the lowest score (M= 4.36, SD= .76).

Table 6
Contactless Dining

No	Instrument	N	Mean	Standard Deviation
1	Contactless menu gives convenience and experiences safer to customers.	104	4.37	0.801
2	Contactless ordering making faster in the ordering process and reduces time.	104	4.36	0.762
3	Contactless server decreasing the risk of spreading the virus.	104	4.46	0.723
4	Contactless reservation help reduce crowd and promote social distancing.	104	4.41	0.758
5	Contactless payment helps transactions done quickly.	104	4.46	.762
6	Contactless payment convenience to customer.	104	4.44	.708

Restaurant Transparency

As can be seen in Table 7, statements of restaurant transparency had mean scores between 3.52 (SD 1.182) and 4.11 (SD 0.902), indicating strong agreement among the respondents. The highest mean score was obtained from the statement, 'The restaurant displays policies about COVID-19 at the front of their restaurant.' (M = 4.11, SD = 0.90) followed by 'The restaurant responds to the customers with honesty.' (M = 4.10, SD = 0.91), and 'The restaurant keeps customers updated with the latest news by social media platforms.' (M = 4.00, SD = 0.89). The lowest mean score was observed for statement, 'The restaurant shows the way they prepared the food.' (M= 3.52, SD= 1.18).

Table 7
Restaurant transparency

No	Instrument	N	Mean	Standard Deviation
1	The restaurant provides the menu items ingredient list.	104	3.83	1.083
2	The restaurant provides nutritional facts of the menu items.	104	3.75	1.130
3	The restaurant shows the way they prepared the food.	104	3.52	1.182
4	The restaurant displays policies about COVID-19 at the front of their restaurant.	104	4.11	0.902
5	The restaurant responds to the customers with honesty.	104	4.10	0.919
6	The restaurant keeps customers updated with latest news by social media platforms.	104	4.00	0.896

Correlation Analyses

The correlational relationship between the independent and dependent variables was classified according to (Cohen, 1988). The strength of the relationship/correlation was divided into categories: weak for r value between 0.10 and 0.29, moderate for r value between 0.30 and 0.49, and strong for r value between 0.50 and 1.00.

Prior to correlation analyses, data were subjected to a normality test where the Kolmogorov-Smirnov statistics with a Lilliefors significance level were tested. It was shown that the significance level is less than 0.05. Hence normality cannot be assumed. As an alternative, Spearman's rho was conducted as an alternative to the parametric bivariate correlation (Pearson's r). However, two misfit items that were identified during Rasch's analysis, were removed.

As shown in Table 7, all independent variables were significantly and strongly associated with consumers' intention to dine out. Thus, a conclusion could be made that restaurant safety measures, contactless dining and restaurant transparency are associated with consumer's intention to dine out during the Covid-19 endemic transition. Contactless dining shows the highest r value in influencing consumer dine-out intention. It indicates that contactless dining can reduce human contact and keep consumers safe where it reduces face-to-face interaction between consumers and restaurant staff. Besides, the practice would enhance consumers' experience by letting them order, pay, and dine as they want. In short, contactless dining is an efficient, simple, and secure approach that could revolutionize dining.

Table 8
Summaries of Pearson Correlations

Independent Variable	p-value	R Value
(1) Restaurant safety measure	0.000	0.506
(2) Contactless dining	0.000	0.627
(3) Restaurant transparency	0.000	0.604

Conclusion

In general, the findings of this study indicated that the 24-item questionnaire was valid and reliable. The item and person were shown to have high reliability and separation indices. All items except two items (B3 and D5), fit the Rasch model and are easy to endorse. In conclusion, this unidimensional questionnaire is valid and reliable despite the presence of two misfit items. The instrument is used to gather data at a larger scale in Malaysia. In addition, the Rasch measurement model can be used to produce a valid and reliable instrument effectively.

Moreover, Spearman's rho analyses showed that there were a strong association between restaurant safety measures, contactless dining and restaurant transparency are associated with consumer's intention to dine out during the Covid-19 endemic transition. The findings indicate that the need for the restauranteurs and all foodservice establishments to ensure all safety measures are taken care off. Similarly, consumers would expect the foodservice establishment management to be transparent should there be any issues related to Covid-19. Similarly, the findings will assist them in gaining and retaining the consumer and their

business to continue to be successful during the current endemic transition and also for future pandemic. Finally, the results also help restaurant owners learn about the latest trend in the food service industry.

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