CONTINUED PATRONAGE AFTER HYGIENE PENALTIES AND EXTENDED TPB STUDY IN ALOR SETAR

HAFIZ, M. H. M.[1] – SABER, J. M.[1*] – NAZARUDDIN, M. I. I.[1] – SALIM, A.[1] – MUSTAPHA, R. I. P. R.[1]

[1] *Faculty of Hotel and Tourism Management, Universiti Teknologi MARA (UiTM) Penang Branch, Penang, Malaysia.*

**Corresponding author*
e-mail: joesr630[at]uitm.edu.my

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Abstract. Hygiene enforcement can alter how customers evaluate a restaurant, although a previous violation does not necessarily end subsequent patronage. Evidence explaining this behaviour remains limited, particularly after customers become aware of an official hygiene penalty. This study therefore examined Continued Patronage Intention toward a Nasi Kandar restaurant in Alor Setar by incorporating Perceived Risk into the Theory of Planned Behaviour (TPB). Questionnaire data from 351 customers were analysed with SPSS. The four-predictor regression model accounted for 28.5% of variation in Continued Patronage Intention. Attitude recorded the largest standardised effect ($\beta = .321$, $p < .001$). Subjective Norm ($\beta = .216$, $p < .001$) and Perceived Behavioural Control ($\beta = .173$, $p = .001$) were also significant, whereas Perceived Risk was not ($\beta = -.010$, $p = .837$). The evidence therefore supports the three original TPB determinants in this post-enforcement context but does not show an additional direct contribution from Perceived Risk. The findings provide a behavioural explanation for continued restaurant patronage after hygiene action and suggest that customer evaluation, social influence, and perceived control remain relevant when operators seek to recover customer confidence.
Keywords: *Theory of Planned Behaviour, continued patronage intention, perceived risk, restaurant hygiene, consumer behaviour, food safety*

Introduction

Cleanliness and food-safety cues form part of the information customers use when deciding whether a restaurant remains acceptable for future visits (Ji et al., 2023; Liu and Lee, 2018). The Malaysian food and beverage services sector generated RM43.8 billion in value added in 2022 (DOSM, 2024). At the restaurant level, hygiene enforcement remains a visible issue. A Nasi Kandar outlet in Alor Setar, for example, received a 14-day closure order in April 2025 following several hygiene violations (Radio Televisyen Malaysia [RTM], 2025). Regulatory information can also affect consumer judgement. Choi et al. (2019) demonstrated that restaurant inspection information and perceived food-safety risk were associated with behavioural responses to restaurant choice. Flanagan and Soon-Sinclair (2025) further found that customers who paid attention to hygiene-rating information expressed stronger food-safety concerns and greater confidence in recent inspections. What remains less established is how customers form an intention to return after a restaurant has already been penalised. TPB provides a useful basis for examining this question because it links behavioural intention with Attitude, Subjective Norm, and Perceived Behavioural Control (Ajzen, 2020). Results from Malaysian foodservice studies are not identical. Halimi et al. (2021) reported significant roles for Attitude and Perceived Behavioural Control in restaurant revisit intention but found no significant effect for Subjective Norm. Loh and Hassan (2022), by comparison, identified significant effects for Attitude and Subjective Norm,

while Perceived Behavioural Control and Perceived Risk were not substantial predictors. These mixed findings warrant further examination in a setting where customers are already aware of a hygiene violation.

The present study therefore evaluates whether the three TPB determinants explain Continued Patronage Intention after a restaurant hygiene penalty and whether Perceived Risk contributes beyond those determinants. The findings also have practical relevance because restaurant operators and enforcement authorities need to understand which factors remain associated with customer retention after corrective action. Four research questions are addressed: (RQ1): Does Attitude significantly influence Continued Patronage Intention toward a restaurant previously penalised for poor hygiene? (RQ2): Does Subjective Norm significantly influence Continued Patronage Intention toward a restaurant previously penalised for poor hygiene? (RQ3): Does Perceived Behavioural Control significantly influence Continued Patronage Intention toward a restaurant previously penalised for poor hygiene? (RQ4): Does Perceived Risk significantly influence Continued Patronage Intention toward a restaurant previously penalised for poor hygiene?

Literature review

Overview of the food and beverages industry in Kedah

Food remains closely connected with Kedah's cultural identity and local consumption patterns (Ishak et al., 2021). Recent enforcement involving food premises in Alor Setar also demonstrates that hygiene compliance remains an operational concern for the local restaurant sector (RTM, 2025). These conditions make Kedah an appropriate setting for investigating customer decisions following hygiene enforcement.

Overview of the Theory of Planned Behaviour (TPB)

Ajzen's (2020) TPB attributes behavioural intention to three judgement processes: personal evaluation of the behaviour, perceived social expectations, and the individual's sense of control over performing it. Empirical evidence from foodservice settings varies. Halimi et al. (2021) found that Attitude and Perceived Behavioural Control were associated with restaurant revisit intention in Malaysia, but Subjective Norm was not. Loh and Hassan (2022) obtained a different pattern, with Attitude and Subjective Norm significant and Perceived Behavioural Control insignificant. The variation across these findings provides a reason to retest all three determinants under a hygiene-penalty condition.

Continued patronage intention

Continued Patronage Intention denotes a customer's stated likelihood of choosing the same restaurant again following earlier experience. Prior research has linked restaurant return behaviour with satisfaction and customers' evaluation of the service encounter (Rajput and Gahfoor, 2020). Ji et al. (2023) additionally showed that favourable perceptions of café food safety were associated with stronger intention to revisit. Continued patronage after hygiene enforcement may therefore involve both the accumulated restaurant experience and a reassessment of safety.

Attitude

Attitude captures the extent to which returning to the restaurant is evaluated favourably. Malaysian evidence consistently points to its relevance. Halimi et al. (2021) found Attitude associated with revisit intention, while Loh and Hassan (2022) reported a significant relationship with foodservice repurchase intention. A favourable evaluation is consequently expected to correspond with stronger willingness to return after a hygiene penalty. (H1): Attitude has a positive effect on Continued Patronage Intention toward a restaurant previously penalised for poor hygiene.

Subjective norm

Subjective Norm concerns the perceived expectations of people who matter to the customer. Evidence is less consistent than for Attitude. Social influence significantly predicted repurchase intention in Loh and Hassan (2022), whereas Halimi et al. (2021) found no significant association with restaurant revisit intention. The contrast suggests that the importance of social approval may depend on the dining situation. (H2): Subjective Norm has a positive effect on Continued Patronage Intention toward a restaurant previously penalised for poor hygiene.

Perceived Behavioural Control (PBC)

Perceived Behavioural Control describes how manageable a person considers the behaviour to be (Ajzen, 2020). Halimi et al. (2021) found a significant contribution to revisit intention, but Loh and Hassan (2022) obtained an insignificant effect. Its influence may therefore vary according to customers' perceived ability to make and carry out the dining decision. (H3): Perceived Behavioural Control has a positive effect on Continued Patronage Intention toward a restaurant previously penalised for poor hygiene.

Perceived risk

Perceived risk represents customers' expectation that a consumption decision may produce an undesirable outcome. Choi et al. (2019) demonstrated that restaurant inspection information can alter food-safety risk assessments and related behavioural intentions. Pai et al. (2024) likewise reported an inverse association between perceived risk and revisit intention in hospitality. Loh and Hassan (2022), however, found no substantial influence of risk on foodservice repurchase intention. These conflicting results make its role after an actual hygiene penalty uncertain. (H4): Perceived Risk has a negative effect on Continued Patronage Intention toward a restaurant previously penalised for poor hygiene.

Conceptual framework

The proposed model combines the three established TPB determinants with Perceived Risk. The latter represents the additional judgement customers may make about possible adverse outcomes after becoming aware of hygiene enforcement (*Figure 1*).

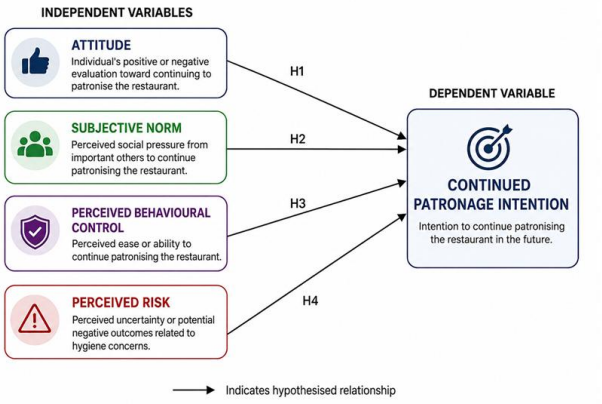


Figure 1. *Conceptual framework.*

Materials and Methods

Research design

A cross-sectional quantitative approach was adopted to test the proposed relationships among Attitude, Subjective Norm, Perceived Behavioural Control, Perceived Risk, and Continued Patronage Intention. Individual restaurant customers formed the unit of analysis. Responses were obtained through an online self-administered survey hosted on Google Forms.

Research sampling and design

Participants qualified for the study when they had patronised the selected Alor Setar restaurant and were aware of its earlier hygiene penalty. Respondents were recruited through convenience sampling after these eligibility conditions were confirmed. The analysis used 351 complete questionnaires. Given the four-predictor model, this number was considered adequate with reference to guidance on sample planning for survey-based multivariate research (Memon et al., 2020).

Instrument development and pilot study

The instrument contained 24 scale items in addition to demographic questions. Five items measured Attitude, four measured Subjective Norm, and five items each assessed Perceived Behavioural Control, Perceived Risk, and Continued Patronage Intention. Measurement content was adapted from Loh and Hassan (2022) and Jin et al. (2020). A six-category response format was used, anchored by strongly disagree and strongly agree. Thirty participants completed the instrument before the main survey. The resulting alpha coefficients ranged from .736 to .796, providing satisfactory evidence of internal consistency for all five scales (*Table 1*).

Table 1. *Reliability analysis.*

Variable / Dimension	Number of Items	Cronbach's Alpha
Attitude	5	.736
Subjective Norm	4	.736
Perceived Behavioral Control	5	.761
Perceived Risk	5	.763
Continued Patronage Intention	5	.796

Note: N = 30. All constructs recorded Cronbach's alpha values above .70.

Data collection procedure

The questionnaire remained accessible for four weeks through a QR code. Initial screening items determined whether a prospective respondent met the eligibility requirements. Information about voluntary participation, confidentiality, anonymity, and the study purpose was presented before the survey questions.

Data analysis

Statistical processing was undertaken in IBM SPSS Statistics 29. Frequencies and related descriptive measures were used to describe the sample. Hypothesis testing relied on a single multiple regression equation in which Continued Patronage Intention was regressed on the four proposed predictors. Tolerance and VIF statistics were inspected for evidence of excessive overlap among the independent variables.

Results and Discussion

Respondent profile

The final sample comprised 351 respondents. Gender representation was relatively balanced, and participants came from several ethnic and employment categories. Slightly more respondents reported dining in at the restaurant (52.4%) than purchasing food for takeaway (47.6%). Full demographic information is presented in *Table 2*.

Table 2. *Demographics profile of respondents.*

Category	N (%)
Gender	
Male	183 (52.1)
Female	168 (47.9)
Race	
Malay	121 (34.5)
Chinese	98 (27.9)
Indian	87 (24.8)
Others	45 (12.8)
Employment	
Public sector	69 (19.7)
Private sector	69 (19.7)
Self-employed	63 (17.9)
Student	59 (16.8)
Unemployed	56 (16.0)
Retired	35 (10.0)
Dining Preference	
Dine-in	184 (52.4)
Takeaway	167 (47.6)

Multiple regression analysis

Table 3 reports the explanatory performance of the model. With the four predictors entered simultaneously, R was .534. The corresponding R^2 of .285 indicates that the model captured 28.5% of the variation in Continued Patronage Intention; the adjusted estimate was .276. The ANOVA results in *Table 4* show that the overall regression model was statistically significant, $F(4, 346) = 34.436$, $p < .001$. Thus, the four predictors collectively explained a significant proportion of the variance in Continued Patronage Intention. The coefficient estimates in *Table 5* show three significant positive predictors. Attitude recorded $\beta = .321$ ($p < .001$), Subjective Norm $\beta = .216$ ($p < .001$), and Perceived Behavioural Control $\beta = .173$ ($p = .001$). These results support H1–H3.

Perceived risk recorded β = −.010 with p = .837 and therefore provided no support for H4. All VIF statistics were low, ranging from 1.159 to 1.424.

Table 3. *Model summary.*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.534a	. 285	. 276	. 8841

Note: a. Predictors: (Constant), Mean_ Attitude, Mean_ Subjective Norm, Mean_ Perceived Behavioral Control, Mean_ Perceived Risk

Table 4. *ANOVA*[a]

Category	Value
Mean Square	26.916
	.782

Note: a. Dependent Variable: Continued Patronage Intention; b. Predictors: (Constant), Attitude, Subjective Norm, Perceived Behavioural Control, Perceived Risk.

Table 5. *Coefficients*[a].

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. error	Beta			Tolerance	VIF
(Constant)	.987	.270		3.656	.000		
Attitude	.345	.055	.321	6.234	.000	.795	1.258
Subjective Norm	.214	.051	.216	4.174	.000	.847	1.181
Perceived Behavioral Control	.192	.058	.173	3.281	.001	.702	1.424
Perceived Risk	-.011	.052	-.010	-0.206	.837	.863	1.159

Note: a. Dependent Variable: Continued Patronage Intention

The analysis produced support for the three original TPB relationships, whereas the proposed effect of Perceived Risk was not confirmed. The model's explanatory capacity was 28.5%, indicating that customer intention after hygiene enforcement can still be partly understood through the established TPB determinants. Attitude had the largest coefficient (β = .321, p < .001). A comparable relationship was reported by Halimi et al. (2021) for restaurant revisit intention and by Loh and Hassan (2022) for repurchase intention. Across these studies, customers who evaluate the dining choice positively show a stronger tendency to return. The present evidence indicates that this pattern remains visible even after customers become aware of hygiene enforcement. Subjective Norm was significant (β = .216, p < .001), agreeing with Loh and Hassan (2022) but differing from the insignificant result reported by Halimi et al. (2021). Social expectations therefore appear sensitive to context. For customers in the current setting, observing continued patronage among people they value may have supported acceptance of returning to the restaurant. Perceived Behavioural Control also contributed to intention (β = .173, p = .001). This result corresponds with Halimi et al. (2021), although Loh and Hassan (2022) obtained little evidence of such an effect. One interpretation is that customers who regard the return decision as straightforward and within their discretion are more willing to patronise the outlet again.

The coefficient for Perceived Risk was essentially zero (β = −.010, p = .837). This resembles the insignificant result obtained by Loh and Hassan (2022), but differs from Pai et al. (2024), where risk reduced revisit intention. Choi et al. (2019) also showed that inspection-related food-safety information can influence restaurant decisions. The present result therefore does not indicate that customers ignore hygiene risk. It indicates that risk supplied almost no additional direct explanation after the three TPB variables were already represented in the regression equation. Operators responding to hygiene

enforcement should therefore make subsequent compliance observable to customers. Clear information about corrective measures may support informed judgement because inspection and safety information can affect consumer decisions (Flanagan and Soon-Sinclair, 2025; Choi et al., 2019). At the same time, the current evidence suggests that retention also depends strongly on how customers evaluate the restaurant, the social environment surrounding the decision, and their perceived control over returning.

Conclusion

This study evaluated customer intention to return to a Nasi Kandar restaurant after hygiene enforcement using TPB supplemented by Perceived Risk. Significant relationships emerged for Attitude, Subjective Norm, and Perceived Behavioural Control. Attitude carried the largest coefficient. Perceived risk added no significant direct explanation within the combined model. The findings show that the behavioural logic proposed by TPB remains applicable in a post-enforcement restaurant setting. Restaurant recovery efforts should therefore address customer evaluations and communicate subsequent hygiene compliance in a credible manner. Interpretation is limited using self-reported responses, convenience recruitment, and a single restaurant setting in Kedah. Replication across other foodservice categories and locations would help establish whether the pattern is stable. Future models may also consider trust, satisfaction, perceived value, and previous dining experience.

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Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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