

Cognitive and affective dimensions of waiting time satisfaction in Indonesian spicy noodle chains

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ABSTRACT

This study introduces and conceptualizes the “Spicy Noodle Chain” as a distinct fast-dining category, identifying cognitive satisfaction, rooted in fairness and efficiency, as the primary driver of customer satisfaction and loyalty in fast-paced dining contexts. It examines how waiting time satisfaction influences overall customer satisfaction in Indonesia’s emerging Spicy Noodle Chain segment, a localized evolution of the fast-food industry that remains underexplored in academic research. Using data from 195 respondents analyzed through Partial Least Squares Structural Equation Modelling (PLS-SEM), the study investigates both cognitive and affective dimensions of waiting time satisfaction. The findings reveal that the attractiveness of the waiting area and perceived waiting time significantly influence affective satisfaction, while experience evaluation strongly affects cognitive satisfaction and overall satisfaction. However, affective satisfaction does not significantly influence overall satisfaction, suggesting that emotional responses are less enduring than cognitive judgments. Overall, the results highlight that fairness perceptions and operational efficiency have a more profound impact on customer satisfaction than transient emotions, offering new insights into service experience management within fast-dining environments.

Keywords: Perceived Waiting Time; Waiting Area Attractiveness; Cognitive Satisfaction; Affective Satisfaction; Customer Satisfaction; Fast-Dining Experience; Spicy Noodle Chain

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Introduction

Customer spends a considerable amount of their time waiting (Lin et al., 2015; Ülkü et al., 2020). In the United States, individuals spend an estimated 37 billion hours annually waiting in physical queues (De Vries et al., 2018). Survey evidence further suggests that waiting is a common consumer experience across service settings; however, restaurants consistently rank among the sectors where customers most frequently encounter waiting lines (Waitwhile, 2022). This pattern is also evident in emerging economies such as Indonesia. Focusing on the restaurant context, Pagudisaputra et al. (2019) reported that average customer waiting time during weekdays was 16.07 minutes, which remained within acceptable service standards. In contrast, waiting times increased substantially during weekends, with restaurants experiencing high demand throughout the day, particularly during dinner hours. The average waiting time for food delivery at ten observed tables during weekends reached 32.35 minutes. Previous studies have consistently demonstrated that prolonged waiting times are negatively associated with customer satisfaction (Giebelhausen et al., 2011; Djelassi et al., 2018; Polas et al., 2018). In response, an extensive body of wait management literature has developed, emphasizing strategies designed to reduce the negative impacts of waiting by enhancing customer satisfaction, corporate image, and consumption intentions, underscoring waiting time as a core driver of satisfaction in service settings (Maister, 2005; Van Riel et al., 2012; Iqbal et al., 2012; Ülkü et al., 2020).

Wait management plays a critical role across a wide range of industries, including public transportation, airports, service operations, and the food and beverage sector (Dickson et al., 2005; Kim, 2011; Lin et al., 2015; Santos et al., 2017; Drabicki et al., 2023). Within the food and beverage industry, fast food restaurants have emerged as a prominent benchmark for effective wait management. By prioritizing operational efficiency and minimizing customer waiting time (Lee & Lambert, 2000), fast food operators have demonstrated that improvements in waiting time directly enhance customer satisfaction (Ayodeji & Rjoub, 2021; Qin et al., 2023). Consequently, prolonged waiting is generally perceived as unacceptable in fast food contexts (Van Riel et al., 2012; Slack et al., 2021).

Although queues and waiting times are common in service settings, they are conceptually distinct. Queues refer to individuals physically lining up, whereas waiting may occur without a visible human presence (Bekker et al., 2011; Dufour et al., 2012; Leonardi et al., 2012). Extended waiting times have been shown to affect customer perceptions and reduce satisfaction negatively (Ayodeji et al., 2023; Caruelle et al., 2023), as well as increase

queue abandonment, leading to revenue loss (Lu et al., 2013; Goswami & Panda, 2021; Tamuli & Choudhury, 2024). To address such inefficiencies, queueing theory provides analytical models to optimize waiting times and service capacities (Van Woensel & Vandaele, 2007; Jin, 2015). In practice, firms such as McDonald's have adopted self-service technologies to enhance operational efficiency and reduce perceived waiting time (Yang et al., 2021; Chan & Petrikat, 2022). However, emerging research suggests that waiting does not always generate negative outcomes; under certain conditions, longer waits may enhance customer satisfaction (Giebelhausen et al., 2011; Polas et al., 2018), signal service quality (Tu et al., 2018), and create a perception of high demand that attracts additional customers (Munichor & Cooke, 2022; Van Nimwegen & Van Rijn, 2023).

These mixed findings highlight the complexity and context-dependent nature of waiting-time perceptions, suggesting that waiting may operate both as a source of dissatisfaction and as a strategic signal of market demand. This paradox is evident in Indonesian Spicy Noodle Chains, such as Mie Gacoan, where long queues are commonly perceived as a sign of popularity rather than a service failure (Prambudi, 2025). This study, therefore, explores the cognitive and affective mechanisms through which perceived waiting time and characteristics of the waiting environment influence customer experience evaluation and satisfaction in the context of Indonesian Spicy Noodle Chains.

Literature Review

Indonesian Spicy Noodle Chain and Experience Evaluation

Although the specific term Spicy Noodle Chain has not been consistently used in prior research, this category represents a distinct and increasingly prominent segment of the food service industry, particularly in Indonesia. Empirical studies conducted in recent years highlight growing academic attention to establishments offering spicy noodle-based menus, even when examined under different labels or brand-specific contexts (Setiawan & Irawati, 2023; Nuraini & Novitaningtyas, 2022; Permatasari et al., 2024; Salsabila et al., 2022; Sulastri, 2022). In this study, a Spicy Noodle Chain refers to a type of restaurant specializing in spicy noodle dishes, complemented by various side dishes, characterized by a strong operational emphasis on efficiency and standardization. Prior research has examined these establishments through dimensions such as service quality (Sulastri, 2022), price and product quality (Setiawan & Irawati, 2023; Nuraini & Novitaningtyas, 2022), and brand image and promotional strategies (Permatasari et al., 2024). Given these characteristics, Spicy Noodle Chains share substantial similarities with fast food operations, particularly in terms of

streamlined service processes and high customer turnover (Salsabila et al., 2022; Candra et al., 2023; Johansyah, 2023; Sahabuddin et al., 2023).

As these establishments increasingly resemble efficiency-driven service formats, understanding how customers evaluate their service experiences becomes particularly important. Customer experience evaluation is widely recognized as a critical determinant of performance in service industries (Wu et al., 2009). Prior studies demonstrate that favourable experience evaluations enhance customer satisfaction and behavioural outcomes, including loyalty and repurchase intentions. In food service settings, experience evaluation is influenced by multiple service attributes, including the physical environment, service quality, food quality, perceived value, and customer expectations (Ryu & Han, 2010; Yaacob et al., 2016; Djelassi et al., 2018). Consequently, customer evaluations may vary substantially depending on how service encounters are interpreted, ranging from highly positive to strongly negative outcomes.

Similar to fast food operations, customer experience in Spicy Noodle Chains is influenced by food quality, service quality, and perceived value (Iqbal et al., 2012; Yaacob et al., 2016); however, waiting time emerges as a particularly salient factor. In efficiency-oriented service formats, customers typically exhibit low tolerance for delays, making waiting time a critical component of experience evaluation (Salsabila et al., 2022). Recent studies further emphasize that perceptions of waiting-time fairness and efficiency significantly affect both experience evaluation and customer satisfaction in restaurant contexts (Giebelhausen et al., 2011; Djelassi et al., 2018; Ayodeji et al., 2023; Caruelle et al., 2023), thereby reinforcing the central role of wait management in shaping overall satisfaction and store evaluation.

Customer Satisfaction and Waiting Time Satisfaction

Customer satisfaction is a central construct in service research and is generally understood as a customer's overall evaluative response following consumption. In food service contexts, satisfaction reflects customers' judgments of whether their service experience meets their needs and expectations, and it plays a critical role in shaping behavioural intentions, willingness to pay, and loyalty (Sunghyup & Han, 2012; Namkung & Jang, 2017; Chen & Peng, 2018; Koesworodjati & Fathiyyahrohmah, 2023). Empirical studies consistently indicate that customer satisfaction is influenced by multiple service attributes, including food quality, service quality, physical environment, perceived value, and waiting time (Ryu & Han, 2010; Sunghyup & Han, 2012; Chen & Peng, 2018; Ramadhan &

Krisnanto, 2024). Accordingly, this study conceptualizes customer satisfaction as a post-consumption evaluation that reflects customers' overall assessment of their service experience.

Waiting time satisfaction represents customers' evaluative responses to the time spent waiting during the service process and has been widely recognized as a critical dimension of service evaluation in restaurants and efficiency-oriented service settings (Giebelhausen et al., 2011; Djelassi et al., 2018; Polas et al., 2018). Contemporary research distinguishes waiting time satisfaction into cognitive and affective dimensions to capture better how customers interpret and react to waiting experiences. Cognitive waiting time satisfaction refers to customers' rational and judgment-based evaluation of waiting time. It reflects how customers assess whether the waiting duration is acceptable, reasonable, fair, or excessive relative to their expectations and the service context (Djelassi et al., 2018; Caruelle et al., 2023). In contrast, affective waiting time satisfaction relates to customers' emotional responses during the waiting experience, such as feelings of irritation, boredom, frustration, or calmness (Giebelhausen et al., 2011; Polas et al., 2018; Ayodeji et al., 2023). While cognitive evaluations focus on "how long" the wait feels in a rational sense, affective evaluations capture "how the wait feels" emotionally.

This distinction is particularly relevant in the context of Spicy Noodle Chains, where prolonged waiting is common and often tolerated due to perceptions of popularity and value. Similar to fast food operations, customers of Spicy Noodle Chains exhibit sensitivity to waiting-related evaluations, making waiting time a salient determinant of overall satisfaction (Iqbal et al., 2012; Yaacob et al., 2016). By examining both cognitive and affective dimensions of waiting time satisfaction, this study provides a comprehensive understanding of how waiting time influences customer satisfaction in Spicy Noodle Chains, thereby extending the waiting time literature to a contemporary and underexplored service context.

Perceived Waiting Time

Prior research consistently demonstrates that customers' perceptions of waiting time often differ from the actual time spent waiting, as waiting experiences are shaped by contextual and psychological factors rather than by clock time alone (Wu et al., 2009; Sarkar et al., 2011). As a result, customers tend to evaluate waiting experiences subjectively, which explains why perceived waiting time often exerts a stronger influence on customer satisfaction than the actual waiting duration (Sarkar et al., 2011; Biya et al., 2022). Recognizing these dynamics, service providers are increasingly adopting strategies aimed at

managing customers' perceptions of waiting, particularly when operational constraints limit their ability to reduce actual waiting times.

From an operational perspective, waiting time is commonly defined as the period during which customers spend before receiving service or being attended to by service staff (Biya et al., 2022). In service settings, waiting times vary across contexts due to differences in demand patterns, service system design, and capacity management. Contemporary literature further conceptualizes waiting time as including multiple forms of unproductive or unoccupied time, such as pre-process waits, perceived unfair waits, and individual or group waiting experiences (Lee & Lambert, 2000). Moreover, waiting time in service research is commonly distinguished into objective waiting time and perceived waiting time. Objective waiting time refers to the actual duration customers spend waiting, whereas perceived waiting time reflects the length of time customers believe they have waited (Hornik, 1984; Hui & Tse, 1996). In service industries, perceived waiting time is considered especially salient because customers' psychological interpretations often outweigh objective measures in determining satisfaction and behavioural responses (Jones & Peppiatt, 1996; Bielen & Demoulin, 2007). Accordingly, much of the waiting-time literature focuses on perceived rather than objective waiting time when evaluating customer experience.

Extant research further shows that perceived waiting time is influenced by a range of contextual and psychological factors, including the service environment, customer expectations, engagement and distraction during the wait, information provision, and the objective waiting duration itself (Bitner et al., 1990; Katz et al., 1991; Sulek & Hensley, 2004; Antonides et al., 2002). Due to this subjective nature, perceived waiting time has consistently been shown to be a more robust predictor of customer experience evaluation and behavioural outcomes than objective waiting time (Taylor, 1994; Tom & Lucey, 1997).

Waiting Area Attractiveness

Bitner et al. (1990) highlighted the impact of the waiting environment on the overall waiting experience, influencing perceived waiting time in various ways. Thomas and Weaver (1975) found that explicit distractions can make time feel shorter, while Baker and Cameron (1996) noted that the service environment has an emotional impact on consumers. Pruyn and Smidts (1998) demonstrated that the attractiveness of the waiting environment significantly impacts consumer appraisal, particularly the affective aspect. Levin and Zakay (1989) supported this, explaining that distractions during waiting time increase mental activity and

divert attention from the passage of time. Van Riel (2012) further noted that the attractiveness of the waiting area influences perceived wait duration and emotional responses.

Chien and Lin (2015) categorized the waiting environment into physical and employee elements. This study focuses on the physical aspect, including intangible factors like lighting, temperature, and music, alongside tangible factors such as colour, furnishings, and layout. These elements are critical in shaping the waiting experience, especially in fast-food chains, which closely resemble spicy noodle chains (Chien & Lin, 2015; Salsabila et al., 2022).

Hypotheses Development

Perceived waiting time is widely recognized as a critical determinant of customers' emotional responses in service encounters. Recent studies emphasize that customers respond more strongly to perceived waiting time than to objective waiting duration, as waiting experiences are psychologically constructed rather than purely time-based (Djelassi et al., 2018; Caruelle et al., 2023). Longer perceived waiting times heighten negative emotions such as boredom and frustration, thereby reducing affective satisfaction with the waiting experience (Polas et al., 2018; Ayodeji et al., 2023). In efficiency-oriented service contexts, such as fast food and Spicy Noodle Chains, customers typically exhibit low tolerance for delays, making perceived waiting time particularly salient (Salsabila & Maskur, 2022; Qin et al., 2023). Accordingly, perceived waiting time is expected to have a negative influence on affective waiting time satisfaction.

H₁: Perceived waiting time has a negative effect on affective waiting time satisfaction.

The attractiveness of the waiting area represents a significant environmental cue that influences customers' emotional reactions during waiting. Contemporary servicescape research demonstrates that visually appealing and engaging environments reduce negative emotions and improve affective evaluations by diverting attention away from time awareness (Van Riel et al., 2012; Slack et al., 2023). In restaurant settings characterized by high demand and frequent queues, an attractive waiting area can help alleviate boredom and frustration, leading to higher satisfaction with the waiting experience (Djelassi et al., 2018; Polas et al., 2018). Given the operational similarity between Spicy Noodle Chains and fast food restaurants (Salsabila & Maskur, 2022), the attractiveness of the waiting area is expected to influence customers' affective waiting evaluations positively.

H₂: Waiting area attractiveness has a positive effect on affective waiting time satisfaction.

Customer experience evaluation reflects customers' overall assessment of service encounters, encompassing food quality, service quality, and physical environment attributes. Recent research in service operations shows that favourable experience evaluations positively influence customers' interpretation of individual service elements, including waiting experiences (Wu et al., 2009; Djelassi et al., 2018). Waiting time satisfaction is increasingly conceptualised as a multidimensional construct involving both affective reactions and cognitive judgments of fairness and reasonableness (Giebelhausen et al., 2011; Djelassi et al., 2018). Given the fast-paced nature of Spicy Noodle Chains, positive experience evaluations are expected to enhance both emotional and rational assessments of waiting time.

H₃: Spicy Noodle Chain experience evaluation has a positive effect on affective waiting time satisfaction.

H₄: Spicy Noodle Chain experience evaluation has a positive effect on cognitive waiting time satisfaction.

Customer satisfaction is a post-experience evaluation shaped by customers' overall perceptions of service encounters. In food service contexts, recent studies confirm that favourable evaluations of food quality, service quality, physical environment, and waiting experience significantly enhance customer satisfaction (Ryu & Han, 2010; Chen & Peng, 2018; Qin et al., 2023). As spicy noodle chains emphasize speed, efficiency, and consistency, positive experience evaluations are expected to lead to increased overall satisfaction.

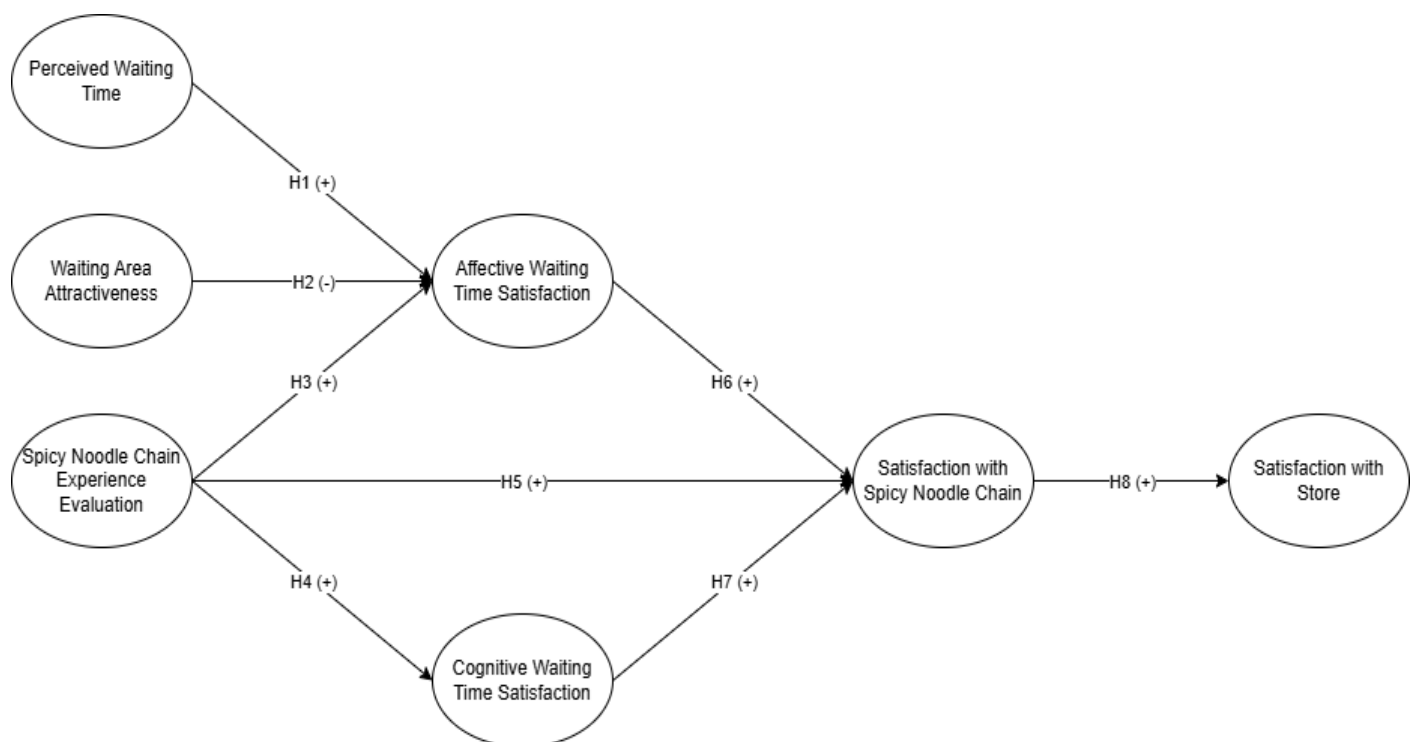
H₅: Spicy Noodle Chain experience evaluation has a positive effect on satisfaction with the Spicy Noodle Chain.

Waiting time satisfaction integrates both emotional responses and rational assessments of waiting experiences. Empirical evidence shows that reduced negative emotions and favourable cognitive evaluations of waiting time significantly enhance overall customer satisfaction in restaurant and retail settings (Djelassi et al., 2018; Polas et al., 2018; Ayodeji et al., 2023). In high-demand service formats such as Spicy Noodle Chains, managing both affective and cognitive dimensions of waiting time is therefore critical for maintaining customer satisfaction.

H₆: Affective waiting time satisfaction has a positive effect on satisfaction with the Spicy Noodle Chain.

H₇: Cognitive waiting time satisfaction has a positive effect on satisfaction with the Spicy Noodle Chain.

Figure 1. Research Framework



Satisfaction is hierarchical in service contexts, whereby overall satisfaction with a brand or service system influences satisfaction with individual service encounters or outlets. Recent studies demonstrate that customers transfer their overall service satisfaction to store-level evaluations, particularly in multi-outlet service chains (Djelassi et al., 2018; Qin et al., 2023). Accordingly, higher satisfaction with the Spicy Noodle Chain is expected to enhance satisfaction with individual store experiences.

H₈: Satisfaction with the Spicy Noodle Chain has a positive effect on satisfaction with the store.

Based on the literature review mentioned before, this study develops a research framework as presented in Figure 1.

Methods

This study employed a purposive sampling approach, targeting consumers of Spicy Noodle Chains in Indonesia, where these chains originated. Purposive sampling was chosen to ensure respondents best represent the customer experiences under investigation (Rai & Thapa, 2015). Data were collected through questionnaires distributed via Google Forms, which were completed by customers upon leaving the restaurant. The required sample size was determined using a priori sample size criteria (Soper, 2020), which indicated a minimum

Table 1. Measurement Items

Constructs	Code	Items
Perceived Waiting Time (PWT)	PWT1	The waiting time was longer than expected.
	PWT 2	The waiting time was too long.
	PWT 3	The waiting time felt slow.
Experience Evaluation (EXP)	EXP1	Overall experience was (1=bad–5=good).
	EXP 2	Overall experience was (1=unpleasant–5=pleasant).
	EXP 3	Overall experience was (1=detrimental–5=beneficial).
Waiting Area Attractiveness (ATT)	ATT1	The waiting area was (1=chaotic–5=neat).
	ATT2	The waiting area was (1=unorganised–5=organized).
Cognitive Waiting Time Satisfaction (COG)	COG1	Waiting time was (1=unreasonable–5=reasonable).
	COG2	Waiting time was (1=very long–5=very short).
	COG3	Waiting time was (1=unacceptable–5=acceptable).
	COG4	Waiting time was (1=intolerable–5=tolerable).
Affective Waiting Time Satisfaction (AFF)	AFF1	I felt frustrated while waiting.
	AFF2	I disliked my waiting time.
	AFF3	I felt stressed while waiting.
	AFF4	I felt annoyed while waiting.
	AFF5	I felt angry while waiting.
	AFF6	I felt irritated while waiting.
	AFF7	I felt bored while waiting.
Satisfaction with Spicy Noodle Chain (SAT)	SAT1	Overall, I am satisfied with the Spicy Noodle Chain.
	SAT2	I would recommend the Spicy Noodle Chain to others.
	SAT3	I am satisfied with staff service.
	SAT4	The Spicy Noodle Chain is among the best.
Satisfaction with the Store (SATS)	NRM1	I am satisfied with my decision to visit this fast-dining store.
	NRM2	I would visit this fast-dining store again.
	NRM3	Visiting this fast-dining store was a wise decision.

of 170 responses based on seven latent variables, 26 measurement indicators, and an anticipated effect size of 0.30. The final sample was 195 responses which is exceeded this threshold, ensuring adequate statistical power and robustness for Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis (Kock & Hadaya, 2018). The measurement items used for each construct are presented in Table 1. Perceived waiting time and waiting area attractiveness items were adapted from Chien and Lin (2015), Lee and Chen (2012), and Van Riel et al. (2012). Spicy Noodle Chain experience evaluation items were adapted from Djelassi et al. (2018). Cognitive waiting time satisfaction items were adapted

from Djelassi et al. (2018) and Durrande-Moreau (1999), while affective waiting time satisfaction items were adapted from Djelassi et al. (2018), Hui and Tse (1996), and Van Riel et al. (2012). Satisfaction with the Spicy Noodle Chain items were adapted from Lahap et al. (2018), Sivadas and Baker-Prewitt (2000), and Westbrook (1980), and satisfaction with the store items were adapted from Djelassi et al. (2018).

The data obtained was analyzed using the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique via SmartPLS (v. 3.2.9), as recommended by Hair et al. (2022). PLS-SEM is widely used in similar studies and provides reliable outcomes (Lugosi et al., 2023). For the measurement model, Average Variance Extracted (AVE) was used to assess convergent validity, as it measures the variance captured by a construct relative to measurement error (Hair et al., 2022). To establish discriminant validity, two methods were employed: cross-loading and the Fornell-Larcker criterion (Hair et al., 2022). Additionally, Henseler et al. (2015) proposed the Heterotrait-Monotrait Ratio (HTMT) to confirm discriminant validity. The Fornell-Larcker criterion compares the square root of AVE with inter-construct correlations, where higher square roots of AVE confirm discriminant validity (Fornell & Larcker, 1981). For the structural model, the study measured the path coefficient and coefficient of determination (R^2). The path coefficient evaluates the predictive relationships between variables, thereby determining the support for a hypothesis. Meanwhile, R^2 measures the model's explanatory power, indicating how well it accounts for variability in the outcome constructs (Hair et al., 2022). As shown in Tables 3, all HTMT values are below the recommended threshold of 0.90, indicating adequate discriminant validity and supporting the distinctiveness of the constructs (Henseler et al., 2015; Leguina, 2015). The Fornell–Larcker results further supported this conclusion (Table 2).

Table 2. Fornell-Larcker Criterion

	Fornell-Lacker Criterion						
	1	2	3	4	5	6	7
1-AFF	0.856						
2-COG	-0.056	0.877					
3-ATT	-0.329	0.234	0.913				
4-EXP	-0.235	0.447	0.620	0.887			
5-PWT	0.461	-0.476	-0.056	-0.107	0.916		
6-SAT	-0.141	0.464	0.437	0.625	-0.157	0.797	
7-SATS	-0.250	0.346	0.496	0.648	-0.161	0.688	0.880

Table 3. HTMT Result

	HTMT						
	1	2	3	4	5	6	7
1-AFF							
2-COG	0.071						
3-ATT	0.369	0.247					
4-EXP	0.260	0.489	0.743				
5-PWT	0.490	0.537	0.071	0.124			
6-SAT	0.161	0.551	0.563	0.776	0.190		
7-SATS	0.277	0.385	0.601	0.751	0.175	0.867	

Table 4. Outer Loading, Cronbach α , CR, and AVE

Constructs	Code	Loading Factors	Cronbach's α	Composite Reliability	AVE
PWT	PA1	0.888	0.905	0.940	0.839
	PA2	0.942			
	PA3	0.919			
ATT	ATT1	0.946	0.806	0.909	0.834
	ATT2	0.878			
EXP	EXP1	0.889	0.865	0.917	0.787
	EXP2	0.894			
	EXP3	0.878			
ATT	WM1	0.918	0.778	0.913	0.857
	WM2	0.846			
	WM3	0.881			
COG	COG1	0.855	0.901	0.930	0.770
	COG2	0.840			
	COG3	0.908			
	COG4	0.904			
AFF	AFF1	0.821	0.927	0.942	0.733
	AFF2	0.870			
	AFF3	0.905			
	AFF4	0.874			
	AFF5	0.882			
	AFF6	0.793			
	AFF7	0.821			
SAT	SAT1	0.867	0.713	0.839	0.635
	SAT2	0.752			
	SAT3	0.768			
SATS	SATS1	0.881	0.855	0.912	0.775
	SATS2	0.882			
	SATS3	0.878			

According to Table 4, Cronbach's α values ranged from 0.713 to 0.927, and the composite reliability values ranged from 0.839 to 0.943, indicating that the scale has acceptable internal reliability (Kline, 2018). Additionally, referring to Table 4, each item has outer loading values above 0.7, except for AFF2, with a value of 0.609, and SAT4, with a value of 0.588, which are below 0.7. These items were deleted to ensure internal reliability further. Next, convergent validity was assessed by verifying whether each variable has an AVE value exceeding 0.5 (Hair et al., 2019). As shown in Table 4, all variables have AVE values above 0.5, thereby establishing convergent validity.

Result and Discussion

To test the study's proposed hypothesis, a structural equation investigation is used. The primary purpose is to assess the study model's ability to explain and predict how changes in the independent variable impact the dependent variable (Hair et al., 2022). Furthermore, to ensure satisfactory model fit, Chin (1998) suggested a minimum R^2 threshold of 0,10. Accordingly, the dependent variable achieves an R^2 value of 0,304 (AFF), 0,200 (COG), 0,433 (SAT), and 0,473 (SATS), therefore suggesting that it adequately represents the collected data. Next, to ensure a good model fit to the data, Hair et al. (2022) recommend a threshold of less than 0.08 on the SRMR value. Accordingly, this study achieves an SRMR value of 0.064, indicating a good fit.

Figure 2. Results of the Hypothesis

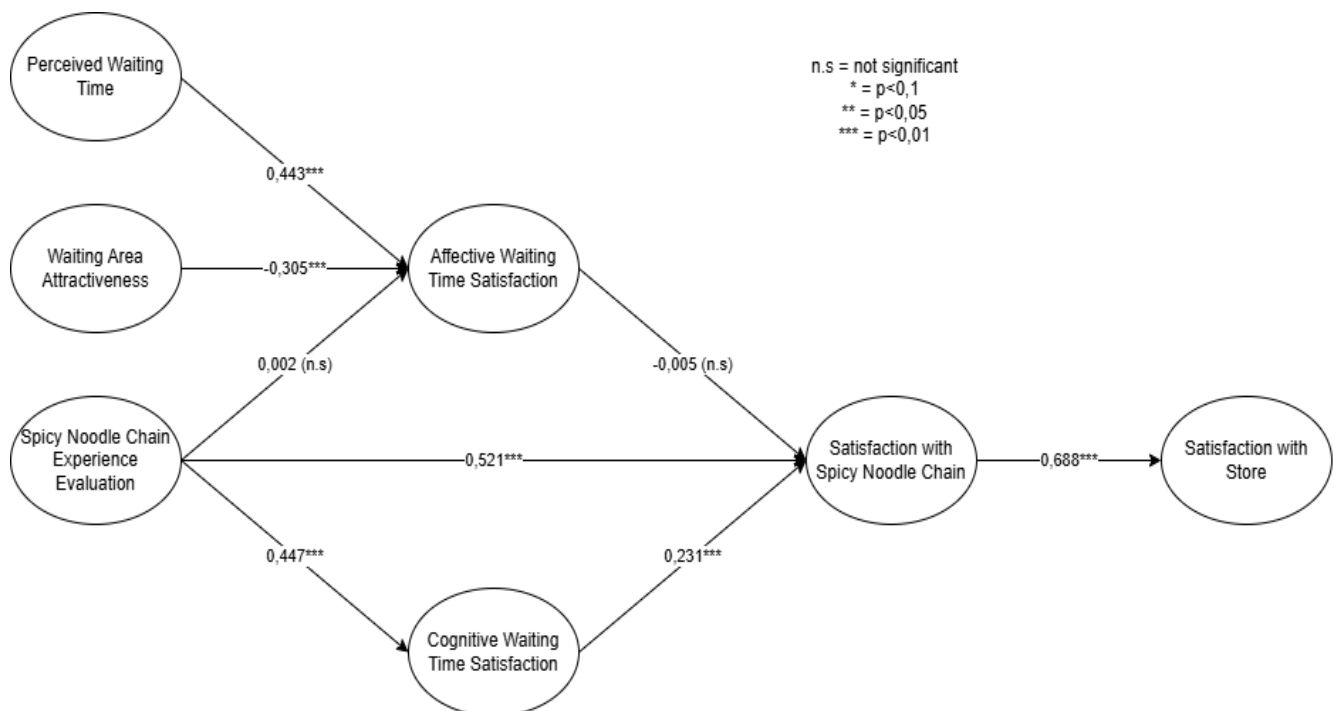


Table 5. Hypothesis Testing

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Decision
H ₁ : PWT -> AFF	0.443	0.448	0.061	7.248	0.000	Supported
H ₂ : ATT -> AFF	-0.305	-0.311	0.081	3.779	0.000	Supported
H ₃ : EXP -> AFF	0.002	0.005	0.09	0.018	0.985	Not Supported
H ₄ : EXP -> COG	0.447	0.45	0.085	5.259	0.000	Supported
H ₅ : EXP -> SAT	0.521	0.526	0.078	6.69	0.000	Supported
H ₆ : AFF -> SAT	-0.005	-0.005	0.06	0.089	0.929	Not Supported
H ₇ : COG -> SAT	0.231	0.227	0.076	3.025	0.002	Supported
H ₈ : SAT -> SATS	0.688	0.690	0.050	13.722	0.000	Supported

The results of the PLS-SEM analysis are presented in Figure 2 and Table 5. As shown in Table 5, six out of eight hypothesised relationships are supported. Perceived waiting time has a significant positive effect on affective waiting time satisfaction (H₁, $\beta = 0.443$, $p < 0.001$), while waiting area attractiveness has a significant negative effect on affective waiting time satisfaction (H₂, $\beta = -0.305$, $p < 0.001$). In contrast, Spicy Noodle Chain experience evaluation does not significantly influence affective waiting time satisfaction (H₃, $\beta = 0.002$, $p = 0.985$). Experience evaluation significantly affects cognitive waiting time satisfaction (H₄, $\beta = 0.447$, $p < 0.001$) and overall satisfaction with the Spicy Noodle Chain (H₅, $\beta = 0.521$, $p < 0.001$). However, affective waiting time satisfaction does not have a significant effect on satisfaction with the Spicy Noodle Chain (H₆, $\beta = -0.005$, $p = 0.929$). Conversely, cognitive waiting time satisfaction has a positive and significant effect on satisfaction (H₇, $\beta = 0.231$, $p = 0.002$). Finally, satisfaction with the Spicy Noodle Chain strongly influences satisfaction with the store (H₈, $\beta = 0.688$, $p < 0.001$), indicating a robust satisfaction transfer effect from chain level to store level.

This study examines the relationship between waiting time and customer satisfaction at Spicy Noodle Chain, with a focus on the cognitive and affective dimensions of waiting time. Results indicate that cognitive aspects, such as perceived fairness and reasonableness, significantly influence satisfaction, aligning with prior research (Hui & Tse, 1996; Pruyn & Smidts, 1998). This finding supports the idea that customers assess waiting experiences not only by how long they wait but by whether the wait feels justified and managed fairly, suggesting that transparency and communication play crucial roles in shaping satisfaction. These findings also support Djelassi et al.'s (2018) insights on the importance of fairness in self-service technology usage and emphasize the need for consistency across the chain to

enhance customer satisfaction with individual stores. Consistency ensures that customer expectations formed at one branch are met at others, thereby strengthening brand trust and perceived service reliability across the network.

The study highlights that a neat and organized environment positively affects affective satisfaction with waiting time, consistent with findings from Van Riel et al. (2012) and Pruyn and Smidts (1998). A well-managed environment is likely to reduce negative emotions, such as anxiety or irritation, helping customers perceive the waiting period as less stressful, even when the actual waiting time remains unchanged. However, experience evaluation, while critical to cognitive waiting time satisfaction and overall satisfaction, does not significantly influence the affective dimension of waiting time satisfaction. This may indicate that affective responses operate more automatically and are less influenced by rational judgments about service quality or process efficiency. In other words, emotions such as frustration or impatience may arise as time passes, regardless of service quality or fairness. Customers who have had negative experiences and perceive a longer wait tend to focus more on the passage of time (Djelassi et al., 2018; Hui & Tse, 1996), suggesting that negative affect heightens time awareness, causing even short waits to feel disproportionately long and unpleasant.

Interestingly, the affective aspect of waiting time satisfaction has minimal impact on overall satisfaction. This suggests that while emotions may colour the immediate service encounter, they do not necessarily translate into lasting judgments about the brand or the entire dining experience. While emotions like boredom or stress may momentarily affect the experience, cognitive factors such as perceived fairness and efficiency seem to play a more critical role. Customers likely prioritize tangible elements such as food quality, service speed, and value (Wu et al., 2009; Anderson et al., 1994), aligning with the chain's focus on quick service. Hence, managing operational efficiency and product consistency remains crucial to maintaining customer satisfaction, particularly in time-sensitive dining environments where customers expect prompt service. This highlights the significant impact of cognitive satisfaction on customer perceptions and loyalty. Cognitive satisfaction, built on fairness and efficiency, tends to foster repeat patronage and positive word of mouth, demonstrating that logical appraisals outweigh fleeting emotions in shaping enduring customer relationships. Overall, the study reveals that cognitive aspects of waiting time significantly shape customer satisfaction, emphasizing the importance of perceived fairness and reasonableness. Positive experience evaluations further enhance cognitive satisfaction, highlighting the critical role of customers' overall experience assessments. However, experience evaluation does not significantly impact the affective aspect of waiting time satisfaction, and affective satisfaction

itself has a limited effect on overall satisfaction. These findings offer valuable insights into the dynamics of customer satisfaction in the food and service industry, providing practical implications for enhancing service quality and fostering customer loyalty.

Conclusion and Suggestion

This study contributes to the literature on wait management, service management, and customer satisfaction by introducing Spicy Noodle Chain as a distinct fast-dining category. Although the term is widely used in practice, its formal conceptualisation in this study provides a novel academic perspective on an underexplored market segment. By positioning Spicy Noodle Chains as a variation of fast food operations, this research extends service research to a contemporary dining format characterised by high demand, frequent queues, and standardised service processes.

Theoretically, this study makes three main contributions. First, it establishes Spicy Noodle Chain as a new research category within fast dining studies. Second, it refines the understanding of satisfaction transferability, demonstrating that satisfaction at the brand or chain level significantly influences satisfaction with individual stores. Third, the study advances waiting time research by highlighting waiting time satisfaction as a multidimensional construct encompassing both cognitive and affective components. The findings indicate that, in fast-paced dining contexts, customers place greater emphasis on cognitive evaluations of waiting time, such as fairness and reasonableness, than on affective reactions. This insight extends existing service theories by showing that waiting is not uniformly negative and that its impact depends on how customers cognitively interpret the waiting experience.

From a managerial perspective, the findings suggest that Spicy Noodle Chains should prioritise fairness, transparency, and efficiency in managing waiting experiences. Providing queue numbers, real-time progress updates, and estimated waiting times can enhance perceived fairness and reduce customer uncertainty. In addition, improving the physical layout and queue design can positively influence customers' overall evaluations of waiting. While affective waiting time satisfaction was not found to directly influence overall satisfaction, managing emotions such as frustration and boredom remains important, as emotional discomfort may indirectly affect customer perceptions.

Several limitations should be acknowledged. First, this study does not incorporate digital wait-management tools, such as self-ordering systems or automated queueing, which are increasingly relevant in fast dining contexts. Second, the findings may be culturally specific,

as the Spicy Noodle Chain concept is rooted in local culinary and consumption patterns. Future research could test the model in other cultural settings or similar fast-dining formats. Finally, the study's sample composition limits the generalisability of the findings. Future studies could include broader demographic variables and explore additional dimensions of Spicy Noodle Chains to further refine the concept and strengthen its applicability in service research.

Disclosure The Use of AI Technologies

During the preparation of this work, the author(s) used Grammarly-AI and WriteHuman-AI to translate, paraphrase, and correct the grammar. After using these tools/services, the author(s) reviewed and edited the content as needed and take full responsibility for the final content of the publication.

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About the Authors

Ivan Jonston Paulus is an undergraduate student in the Business and Economics Faculty in University of Surabaya, Indonesia. Ivan has strong interest in logistics, supply chain management, and service quality research. His current research focuses on the relationship between Logistics Service Quality (LSQ), third-party logistics (TPL) performance, and consumer behavior. Ivan's academic work explores how service quality dimensions and operational performance influence customer perceptions and value creation in modern logistics environments. He has previous research experience in topics related to supply chain performance, operational efficiency, and consumer behaviour within logistics services. In this study, Ivan led most of the core research activities. He developed the initial draft, revised the manuscript, shaped the research concept, designed the methodology, built and managed the software components, conducted validation and formal analysis, carried out the investigation, gathered resources, handled data curation, prepared the visualizations, and performed proofreading.

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