Research Article

Consumer Purchasing Behavior for Thai Shrimp Paste: Evidence from a Traditional Agri-Food Product

Chaiyawit Muangmee and Nusanee Meekaewkunchorn

Faculty of Management Sciences, Bansomdejchaopraya Rajabhat University, Bangkok, Thailand.

Abstract | In most developing countries, traditional agri-food products are significant for rural livelihoods and the development of value chains (VCs). This study focuses on the buying behavior of a traditional fermented seafood product, Thai shrimp paste, which is mainly manufactured by small-scale processors and marketed under the "One Tambon One Product" program in Thailand. Using the Theory of Planned Behavior (TPB), the relationship between the purchase intentions and actual buying behavior of consumers in relation to community-based agricultural products was examined. Empirical analysis was performed using Structural Equation Modeling (SEM) by collecting primary data from 400 consumers. The findings suggest that attitude toward purchase (β= 0.139, $p < 0.05$) and perceived behavioral control (β= 0.881, $p < 0.001$) significantly impact purchase intention. However, the intent to purchase is not a major determinant of actual purchasing behavior. Rather, the influence of perceived behavioral control on actual purchasing behavior was significant (β= 0.582, $p <0.001$) and reflected the significance of product availability, accessibility, and convenience on consumer decision-making. The findings reveal a shift from intention-driven purchasing to access-driven purchasing, where structural accessibility overrides psychological intention in determining actual buying behavior. Regarding agricultural development, this study highlights the importance of enhancing distribution channels, market access, and market logistical infrastructure to empower small agro-processors. These lessons can be applied by policymakers and development agencies that seek to encourage traditional agricultural food products, increase rural income, and make the food value chain more sustainable.

Received | January 21, 2026; **Accepted** | March 5, 2026; **Published** | August 13, 2026
***Correspondence** | Chaiyawit Muangmee, Bansomdejchaopraya Rajabhat University, Thailand; **Email:** Chaiyawit.m@bsru.ac.th
Citation | Muangmee, C. and N. Meekaewkunchorn. 2026. Consumer purchasing behavior for thai shrimp paste: Evidence from a traditional agri-food product. *Sarhad Journal of Agriculture,* 42(4): 1369-1379.
DOI | https://dx.doi.org/10.17582/journal.sja/2026/42.4.1369.1379
Keywords | Theory of planned behavior, Traditional agri-food products, Consumer purchasing behavior, Perceived behavioral control, Rural agro-processing, Market access

Introduction

Fisheries and aquaculture are the two major sources of input for maintaining the global seafood supply chain. By 2020, the global seafood supply totaled 214 million tons. This record was divided into 91.3 million tons (42.7%) of fishery origin and 122.6 million tons (57.3%) of aquaculture origin (FAO, 2022). The Asia-Pacific area has been the center of global seafood sources as the situation in this area makes it a good location for seafood sources (Kornboontritos, 2023). China had the largest market share in the world, with a 10.7 percent share of processed seafood exports, followed by Norway (8.2%), Russia (5.0%),

and Mozambique (4.6%). In the case of processed seafood importers, China ranked second, accounting for 12.4 percent of the total world imports, followed by the United States (11.1 percent), Thailand (7.0 percent), Japan (7.0 percent), and South Korea (5.5 percent). Within this global context, Thailand exports processed seafood by volume and value, ranking 8th and 14th, respectively (Kornboontritos, 2023). Several issues have given the country an opportunity to build its own industry, including geography, as most of Thailand is composed of a long peninsula, which has easy access to the sea along two long and fertile coastlines. Although macro-level competitiveness and export patterns are seen in the global seafood trade, consumer buying behavior at the local level determines the feasibility of community-based value chains. Traditional products like OTOP shrimp paste are used in Thailand and work within this dual format whereby they are embedded in the global supply chains but constrained by localized distribution systems.

In this context, Thai shrimp paste, locally known as Ka-pi, is more than a mere condiment; it is a quintessential element of Thailand's culinary and cultural identity. This traditionally fermented product, primarily derived from the artisanal fermentation of Acetes or silver shrimp with sea salt, represents a sophisticated synergy between local wisdom and natural microbial processes (Pongsetkul *et al*., 2015). Beyond its functional role in food preservation, fermentation creates a complex "Umami" profile and releases bioactive compounds that serve as the aromatic and nutritional foundation for countless Thai dishes (Kleekayai *et al*., 2015). Despite these intrinsic values, the product faces a persistent market paradox: its characteristic pungent aroma can act as a significant barrier to purchase. However, recent flavoromics research suggests that different heating methods can significantly transform its volatile profile and enhance palatability (Barbera and Ajzen, 2020).

In response to these challenges, the Thai government's "One Tambon One Product" (OTOP) initiative was established to elevate local artisanal goods to global standards (Nagashima and Kato, 2025), a move that aligns with international agrifood system transformation goals for healthy diets (FAO, 2023). While quality benchmarks such as the "OTOP Product Champion" provide a baseline for consumer trust, empirical evidence suggests that such certifications alone cannot effectively bridge the gap between product awareness and purchasing behavior. This is particularly evident in the traditional food sector, where consumer purchase intentions are influenced by a complex interplay of heritage and situational factors (Teixeira *et al*., 2022).

The Theory of Planned Behavior (TPB) has long been the gold standard for predicting consumer actions (Ajzen, 1991). However, when applied to heritage products like OTOP shrimp paste, the standard model often encounters a profound "Intention-Behavior Gap." Therefore, this study transcends conventional theory-testing exercises. We provide a structural critique by demonstrating that in markets defined by logistical constraints, Perceived Behavioral Control (PBC) functions as a direct mechanism that may bypass intention altogether. By identifying the mediation failure of purchase intention, this study offers a novel contribution to the consumer behavior literature, providing a nuanced understanding of how structural accessibility dominates psychological intent in the unique dynamics of the Thai market.

Literature review

Theoretical foundations: The theory of planned behavior (TPB)

The conceptual architecture of this investigation is anchored in the Theory of Planned Behavior (TPB), as proposed by Ajzen, (1991). This framework asserts that human actions are primarily governed by a cognitive precursor known as behavioral intention. This intention, in turn, is multifaceted, emerging from the confluence of three distinct determinants: attitude, which encapsulates an individual's evaluative judgment of the behavior; Subjective Norm, reflecting the internalized social pressures and expectations; and Perceived Behavioral Control (PBC), which accounts for the perceived autonomy and logistical feasibility of executing the action based on anticipated facilitators or constraints.

Interplay between product quality and intent in fermented foods

Current scholarly discourse emphasizes that product quality serves as a fundamental catalyst for consumer psychology in the fermented food sector. Empirical insights Hu *et al*. (2024) demonstrate that sensory excellence, specifically taste profiles, integrated with stringent food safety protocols, are pivotal in cultivating favorable consumer attitudes. Within the specific context of Thai shrimp paste, these quality-

centric perceptions act as a bridge, facilitating the transition from passive product awareness to a robust and concrete intention to purchase.

Deconstructing the intention–behavior gap

A critical tension identified in consumer behavior literature is the "Intention–Behavior Gap," wherein high levels of cognitive intent do not consistently manifest as tangible actions. Rhodes *et al.* (2022) and Carrington *et al.* (2014) posited that this disconnection is often exacerbated by extraneous situational variables, including marketplace accessibility, financial fluctuations, and immediate social cues that interrupt the translation of intent into behavior. This gap is particularly pronounced for OTOP products. Traditional logistical inefficiencies and restricted distribution networks frequently serve as structural bottlenecks that prevent consumers from acting on their established intentions.

Conceptual integration

Drawing upon the Theory of Planned Behavior (TPB), the conceptual model proposes that attitude toward purchase (ATT), Subjective Norm (SN), and Perceived Behavioral Control (PBC) influence Actual Buying Behavior (AB) both directly and indirectly through Purchase Intention (BI). This integrated model emphasizes the psychological determinants of cognitive evaluation, social pressure, and perceived accessibility in shaping consumer success in the OTOP markets. Furthermore, the model is designed to scrutinize the "Intention-Behavior Gap," exploring how factors like PBC can exert a robust direct effect on behavior, potentially bypassing the mediating role of intention in the context of traditional wisdom-based products. In this study, 'Structural Override' refers to the phenomenon whereby perceived accessibility and resource availability directly trigger purchasing behavior without mediation through intention.

- H1: Attitude toward Purchase (ATT) has a significant positive influence on Purchase Intention (BI) for Thai shrimp paste OTOP.
- H2: Subjective Norm (SN) has a significant positive influence on Purchase Intention (BI) for Thai shrimp paste OTOP products.
- H3: Perceived Behavioral Control (PBC) has a significant positive influence on Purchase Intention (BI) for Thai shrimp paste OTOP.
- H4: Purchase Intention (BI) has a significant positive influence on Actual Buying Behavior (AB) for Thai shrimp paste OTOP products.
- H5: Perceived Behavioral Control (PBC) has a significant positive influence on Actual Buying Behavior (AB) for Thai shrimp paste OTOP.
- H6: Purchase Intention (BI) mediates the relationship between Attitude toward Purchase (ATT) and Actual Buying Behavior (AB) for the Thai shrimp paste OTOP products.

H7: Purchase Intention (BI) mediates the relationship between Subjective Norm (SN) and Actual Buying Behavior (AB) for Thai shrimp paste OTOP.

H8: Purchase Intention (BI) mediates the relationship between Perceived Behavioral Control (PBC) and Actual Buying Behavior (AB) for Thai shrimp paste OTOP.

Methodology

Study area

This study utilized a quantitative survey design to empirically test the proposed conceptual framework within the context of Thailand's community-based economy. Samut Sakhon Province was purposively selected as the geographical focus due to its status as the primary production hub and strategic distribution center for high-quality OTOP shrimp paste. To ensure high data integrity, the study targeted consumers with established experience, requiring respondents to have purchased or consumed the product within a six-month period prior to the survey.

Introduction to OTOP

Thailand's OTOP, based on the international OVOP model, has been institutionalized as a national policy to improve the rural economic sector in the country. It is driven at three governance levels: the national OTOP administrative committee, provincial and district committees, and Tamban. Administration Organization (TAO) -OTOP has been one of the drivers of local enterprise development. According to Ponark and Ahmad (2025), between 2001 and 2008, OTOP initially involved itself in the identification and selection of local wisdom-based products, a system of product quality rating, and launching the OTOP CITY. There was a transition towards sustainability in 2009, focusing on community interaction and reinforcing the local economy of the village. It started to prioritize community participation and reinforce the local economy in 2010 and lift OTOP. Creative

economy products in 2011. This time was also geared towards consolidating knowledge-based networks, which help the youth to maintain the local heritage and market OTOP products. The project encouraged the use of Thai fabrics and extended OTOP products to the international level.

Sampling strategy and participant profiling

The data collection process was executed with meticulous rigor using a structured questionnaire facilitated by five trained research assistants. Initially, 580 questionnaires were distributed to prospective respondents who met the strict profiling criteria for this study. By the end of the collection period, 425 questionnaires were retrieved, representing a robust response rate of 73.2%. To safeguard against non-response bias, a wave analysis was conducted to compare the demographic profiles of early and late respondents; no statistically significant differences were observed ($p > 0.05$), confirming the sample's representativeness.

Following a stringent data cleaning protocol, 25 instruments were excluded due to "straight-lining" or incomplete responses to ensure the authenticity of the data. This rigorous process resulted in a final dataset of 400 valid responses, providing a high-quality psychometric foundation for the advanced multivariate analysis.

Instrumentation and psychometric validation

Data acquisition was facilitated through a meticulously designed structured questionnaire employing a 5-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). To ensure construct validity, measurement items for attitude (ATT), Subjective Norms (SN), and Perceived Behavioral Control (PBC) were adapted from the foundational work of Ajzen, (1991); Fishbein and Ajzen, (2011) to suit the OTOP heritage context.

The instrument underwent a two-stage validation process.

- **Content Validity:** Authenticated using the Index of Item-Objective Congruence (IOC) by a multidisciplinary panel of experts who scrutinized the clarity and theoretical fit (Ling *et al.*, 2025).
- **Construct Reliability:** Verified using Cronbach's alpha coefficients, which consistently exceeded the 0.80 threshold for all constructs, confirming high internal consistency (Muangmee *et al.*, 2024).

Analytical framework and statistical rigor

The analytical phase synthesized both descriptive and inferential statistical techniques, employing covariance-based structural equation Modeling (CB-SEM) as the primary vehicle for hypothesis testing. The structural relationships were processed using AMOS version-26 , facilitating a robust interrogation of the conceptual framework. This computational approach was selected for its precision in estimating complex latent constructs and its ability to validate the overarching integrity of the structural model in the OTOP heritage sector. To achieve the highest level of statistical rigor, the following methodological protocols were implemented.

Mediation Precision: To enhance the accuracy of the mediation analysis and address potential distribution complexities, a bootstrapping procedure with 5,000 resamples was utilized. This non-parametric resampling facilitated the generation of 95% bias-corrected confidence intervals, providing a robust and conservative basis for determining the statistical significance of indirect influences on actual buying behavior (Ling *et al.*, 2025).

Goodness-of-Fit Evaluation: The adequacy of the empirical model was scrutinized using a multidimensional suite of established fit indices. Specifically, the model was evaluated against stringent criteria, including $\chi^2/df < 3.0$, GFI, CFI > 0.90, and RMSEA < 0.08 (Muangmee *et al.*, 2024). These standards ensured that the model satisfied rigorous academic requirements while maintaining the theoretical core of the Theory of Planned Behavior (TPB

Results

Descriptive statistics and distributional assumptions

The preliminary analysis, as summarized in Table 1, demonstrates that all core theoretical constructs, specifically Attitude Toward Purchase (ATT), Subjective Norm (SN), Perceived Behavioral Control (PBC), Purchase Intention (BI), and Actual Buying Behavior (AB), attained mean scores categorized at a "High" level. Within this causal framework, Attitude Toward Purchase was identified as the most salient determinant ($\bar{x}$ = 3.99, S.D. = 0.65), followed by Perceived Behavioral Control ($\bar{x}$ = 3.92, S.D. = 0.61),

Table 1: *Descriptive statistics on variables*

Observable Variables	$\bar{x}$	SD	Sk	Ku	Interpretation
Attitude toward purchase (ATT)	3.99	0.65	-0.612	0.380	High
Expectations from Important people	4.02	0.70	-0.666	0.324	High
Support from Family & Friends	3.96	0.72	-0.528	-0.019	High
Social pressure	3.99	0.74	-0.641	0.287	High
Subjective Norms (SN)	3.89	0.65	-0.457	0.063	High
Expectations from important people	3.86	0.74	-0.428	-0.067	High
Support from Family & Friends	3.91	0.73	-0.505	0.046	High
Social Pressure	3.91	0.74	-0.443	-0.057	High
Perceived behavioral control (PBC)	3.92	0.61	-0.370	0.208	High
Confidence that it can be done	3.89	0.69	-0.273	-0.198	High
Resources & Opportunities	3.90	0.74	-0.415	-0.021	High
Self-Control	3.96	0.71	-0.422	-0.093	High
Purchase intention (BI)	3.86	0.65	-0.404	-0.038	High
Future intention	3.84	0.77	-0.429	-0.199	High
Purchase planning	3.85	0.77	-0.463	-0.117	High
Opportunity to buy	3.90	0.75	-0.439	-0.089	High
Actual buying behavior (AB)	3.72	0.70	-0.297	-0.205	High
Purchase frequency	3.69	0.79	-0.198	-0.400	High
Number of purchases time	3.73	0.77	-0.320	-0.219	High
Implementing the plan	3.74	0.81	-0.442	-0.246	High

and Subjective Norm ($\bar{x}$ = 3.89, S.D. = 0.65). A pivotal insight derived from the descriptive results is the observable divergence between cognitive intent and actions. Specifically, the mean score for Purchase Intention ($\bar{x}$ = 3.86, S.D. = 0.65) was noticeably higher than that of Actual Buying Behavior ($\bar{x}$ = 3.72, S.D. = 0.70). This numerical variance provides foundational evidence of an "Intention–Behavior Gap" within the OTOP shrimp paste market, implying that high psychological readiness does not inherently guarantee a realized purchase in this cultural context. Furthermore, establishing the distributional properties of the dataset was essential for validating the assumptions of subsequent multivariate analyses. The empirical results indicate that Skewness (Sk) indices for all indicators ranged from -0.198 to -0.666, while Kurtosis (Ku) values ranged between -0.400 and 0.380. Because these values fell strictly within the ±2.0 threshold, the data exhibited a satisfactory normal distribution. Adhering to these normality standards satisfies the prerequisite conditions for Structural Equation Modeling (SEM), ensuring that the maximum likelihood estimation remains robust, statistically reliable, and capable of maintaining the conceptual integrity of the study (Bagozzi, 2000; Hair *et al.*, 2017).

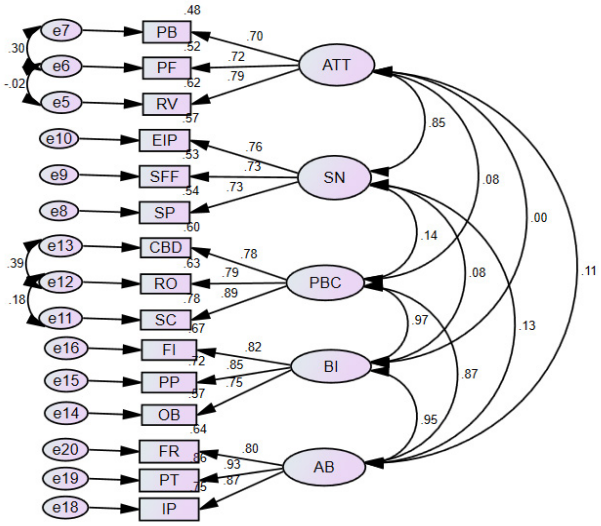

Figure 1: *Confirmatory factor analysis model.*

Adequacy of the measurement model

To confirm the psychometric adequacy of the measurement model, standardized factor loadings and Squared Multiple Correlations (SMC) were rigorously evaluated (Figure 1). All factor loadings were statistically significant, with critical ratios exceeding the 1.96 threshold ($p < .05$, with the majority achieving $p < .001$), thereby reinforcing the relevance of each selected indicator. For the Attitude Toward Purchase (ATT) construct, "Recognition of

Value" (RV) emerged as the primary determinant, demonstrating the most robust loading (β = 0.786) and accounting for 61.9% of the variance (SMC = 0.619). This was followed by "Positive Feelings" (PF; β= 0.719, SMC = 0.517) and "Perception of Benefits" (PB; β = 0.696, SMC = 0.484), indicating that value recognition was the most influential dimension within the second-order ATT model. Regarding Subjective Norms (SN), the analysis revealed a relatively balanced contribution from its three social influence dimensions. "Expectations from Important People" (EIP) recorded the highest loading (β= 0.757, SMC = 0.573), followed by "Social Pressure" (SP; β= 0.734, SMC = 0.539) and "Support from Family & Friends" (SFF; β = 0.726, SMC = 0.528), suggesting that expectations from significant others carry slightly more weight in shaping social perceptions. The Perceived Behavioral Control (PBC) construct was predominantly driven by "Self-Control" (SC), which displayed a powerful loading of β = 0.885 and explained 78.3% of the dimension's variance (SMC = 0.783). This was supplemented by "Resources & Opportunities" (RO; β = 0.794, SMC = 0.631) and "Confidence that it can be done" (CBD; β = 0.776, SMC = 0.602). In the case of Purchase Intention (BI), "Purchase Planning" (PP) served as the most central manifestation (β = 0.849, SMC = 0.720), followed by "Future Intention" (FI; β = 0.818, SMC = 0.669) and "Opportunity to Buy" (OB; β = 0.754, SMC = 0.568), underscoring that planning-oriented behaviors are integral to intentionality. Finally, for Actual Buying Behavior (AB), the "Number of Purchase Times" (PT) stood out as the most significant observed manifestation, with a superior loading of β = 0.926 and an explanatory power of 85.7% (SMC = 0.857). Other contributing factors included "Implementing the Plan" (IP; β = 0.867, SMC = 0.751) and "Purchase Frequency" (FR; β = 0.799, SMC = 0.639). These comprehensive CFA results, as detailed in Table 2, substantiate that the measurement model was both valid and reliable for subsequent structural analysis.

Evaluation of the measurement model (CFA)

The psychometric properties of the measurement model were rigorously assessed using Confirmatory Factor Analysis (CFA), with the comprehensive results detailed in Table 2. This analysis scrutinized the structural integrity and associative strength between the latent constructs and their respective observable indicators. The empirical findings are summarized as follows.

Factor Loadings (β): All observable indicators exhibited standardized factor loadings (β) ranging from 0.696 to 0.926. Following the conservative criteria established by Hair *et al.* (2017), these loadings substantially exceeded the 0.50 threshold, thereby demonstrating exceptional indicator reliability and structural validity. Notably, the "Number of Purchase Times" (PT) emerged as the most potent manifestation within the Actual Buying Behavior construct, recording the highest loading (β = 0.926).

Table 2: *Results of the confirmatory factors*

Latent variables	Observable variables	Estimate	S.E.	(β)	C.R.	SMC
Attitude toward Purchase (ATT)	Perception of benefits (PB)	1.000	–	0.786***	–	0.619
	Positive feelings (PF)	0.920	0.076	0.719***	12.180	0.517
	Recognition of value (RV)	0.869	0.074	0.696***	11.786	0.484
Subjective Norms (SN)	Expectations from important people (EIP)	1.000	–	0.734***	–	0.539
	Support from family & friends (SFF)	0.977	0.076	0.726***	12.851	0.528
	Social pressure (SP)	1.004	0.076	0.757***	13.268	0.573
Perceived Behavioral Control (PBC)	Confidence that it can be done (CBD)	1.000	–	0.885***	–	0.783
	Resources & opportunities (RO)	0.969	0.045	0.794***	21.392	0.631
	Self-control (SC)	0.888	0.047	0.776***	18.733	0.602
Purchase Intention (BI)	Future intention (FI)	1.000	–	0.754***	–	0.568
	Purchase planning (PP)	0.990	0.055	0.849***	18.033	0.720
	Opportunity to buy (OB)	0.964	0.056	0.818***	17.271	0.669
Actual Buying Behaviour (AB)	Purchase frequency (FR)	1.000	–	0.867***	–	0.751
	Number of purchases time (PT)	1.105	0.042	0.926***	26.172	0.857
	Implementing the plan (IP)	0.986	0.049	0.799***	20.117	0.639

*Note: ***=significance at 1%*

Statistical Significance: Every indicator achieved a high degree of statistical significance at the $p < 0.001$ level. Furthermore, the Critical Ratio (C.R.) values, which ranged from 11.786 to 26.172, far surpassed the standard required threshold of 1.96. This robust evidence confirms that the selected indicators serve as valid and highly representative measures of the underlying latent variables.

Squared Multiple Correlations (SMC): The SMC values, reflecting the variance explained by the latent constructs for each observable indicator, ranged from 0.484 to 0.857. With the majority of indicators exceeding the 0.50 benchmark, the measurement model demonstrated superior explanatory power and satisfactory convergent validity.

In summary, the CFA results provide empirical evidence that the measurement model is robust, reliable, and psychometrically sound. This validated framework establishes a rigorous foundation for the subsequent examination of structural relationships and testing of research hypotheses.

Structural equation modelling

The final analysis involved evaluating the relationships between the study variables using the SEM model. The structural relationships within the conceptual framework were interrogated using structural equation Modelling (SEM), with the inferential statistics detailed in Table 3 and Figure 2. Empirical evidence reveals a nuanced causal landscape governing consumer behavior in the OTOP shrimp paste market.

The analysis identified two primary catalysts for Purchase Intention (BI). Attitude toward purchase (ATT) exerted a significant and positive influence on intent ($\beta = 0.139$, C.R. = 2.050, $p < 0.05$), validating that favorable product evaluations are fundamental to consumer's readiness. More prominently, Perceived Behavioral Control (PBC) exhibited a robust and highly significant impact on BI ($\beta = 0.881$, C.R. = 17.246, $p < 0.001$), suggesting that perceived ease of access and situational control are the dominant drivers of intentionality in this context. Conversely, Subjective Norms (SN) demonstrated a negligible and non-significant effect on BI ($\beta = -0.035$, C.R. = -0.585, $p > 0.05$), implying that social expectations and external pressures do not substantially shape the intention to purchase this traditional heritage product.

Regarding the drivers of actual action, the results substantiate that Purchase Intention (BI) significantly translates into Actual Buying Behavior (AB) ($\beta = 0.399$, CR). = 4.801, $p < 0.001$). Crucially, the model uncovers a powerful direct path from PBC to Actual Buying Behavior ($\beta = 0.582$, C.R. = 6.365, $p < 0.001$). This direct influence is notably stronger than the mediated path via intention, indicating a "Structural Override" where resource availability and logistical convenience directly catalyze purchasing actions. These findings underscore that while psychological intent is relevant, the practical capacity to perform the behavior remains the most decisive factor in realizing OTOP product purchases.

Table 3: *Structural equation modelling*

Path relationships	Estimate	S.E.	C.R.	P-value
ATT→BI	0.139	0.068	2.050	0.040**
SN→BI	-0.035	0.060	-0.585	0.558
PBC→BI	0.881	0.051	17.246	***
BI→AB	0.399	0.083	4.801	***
PBC→AB	0.582	0.091	6.365	***

*Note: ***=significance at 1%*

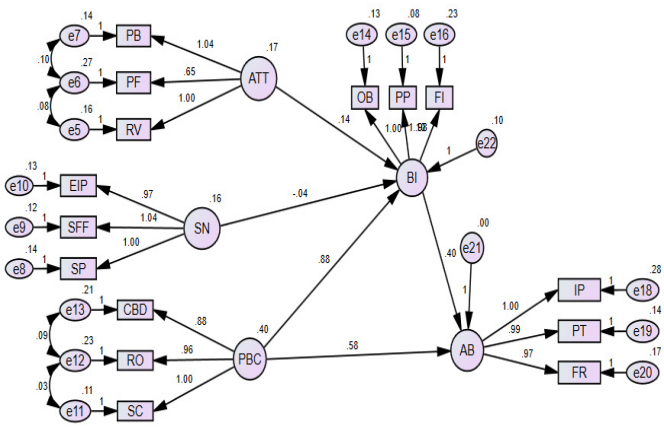

Figure 2: *Structural equation modelling*

Structural model adequacy and mediation analysis

The structural integrity of the proposed model was rigorously evaluated using a suite of established goodness-of-fit index. The analysis yielded a χ^2/df ratio of 2.934, comfortably below the recommended threshold of 3.00, suggesting satisfactory alignment between the theoretical framework and the empirical data. High-performance fit was further evidenced by the CFI (0.964) and TLI (0.950), both of which significantly exceeded the 0.90 benchmark. The RMSEA was 0.070, which is within the acceptable limit of 0.08 for a reasonable error of approximation.

Although the AGFI (0.893) was marginally below the 0.90 ideal, it remained within the broadly recognized permissible range for complex structural models. Collectively, these indices substantiate that the model possesses a sufficiently robust fit to warrant further hypothesis testing and path interpretation.

Beyond the assessment of direct causality, this study scrutinized the potential mediating role of Purchase Intention (PI) using a bootstrapping procedure. Intriguingly, the results indicated that the indirect effects of all antecedent variables on Actual Buying Behavior (AB) through BI were statistically non-significant (Table 4). This empirical evidence suggests that, within the context of OTOP shrimp paste, Purchase Intention (BI) fails to function as a mediator for the effects of Perceived Behavioral Control (PBC), Subjective Norms (SN), and attitude (ATT) on actual purchase actions.

This "Mediation Failure" signifies a profound "Intention–Behavior Gap," revealing that actual consumer behavior in the heritage product sector is not a linear byproduct of psychological intent. Instead, the results point toward a "Structural Override," where direct situational drivers—specifically PBC-bypass the intentional stage to trigger behavior directly. These findings, detailed in Table 4, offer a novel contribution by challenging the traditional sequential assumptions of the TPB framework in the artisanal food market context.

Table 4: *Indirect effects analysis*

Path Relationships	Total effects	Direct effects	Indirect effects
PBC → BI → AB	0.933***	0.582***	0.352
SN → BI → AB	-0.014	0.001	-0.014
ATT → BI → AB	0.056	0.001	0.056

*Note: *** = significance at 1%*

Results of hypothesis

Utilizing a Bootstrapping technique (5,000 resamples), this study scrutinized the mediating role of BI. Paradoxically, all indirect paths were found to be statistically non-significant, confirming Mediation Failure. Consequently, H6, H7, and H8 were rejected (Table 5). This indicates that Actual Buying Behavior in this context is driven through Direct Causal Paths rather than a traditional sequential progression. The failure of BI to mediate PBC and ATT suggests that for traditional wisdom-based goods, the cognitive "planning" phase is often bypassed by immediate situational facilitators.

Table 5: *Summary of hypothesis testing results based on sem and bootstrapping analysis*

Hypothesis	Path relationship	Coefficient (β)	Result
H1	Attitude toward purchase→Purchase Intention	0.139*	Supported
H2	Social Norms→Purchase Intention	-0.035	Not Supported
H3	Perceived Behavioral Control →Purchase intention	0.881***	Supported
H4	Purchase Intention →Actual buying behaviour	0.399***	Supported
H5	Perceived behavioral control →Actual behavior	0.582***	Supported
H6	Perceived Behavioral Control → Purchase intention →Actual buying behaviour	Indirect effect (N.S.)	Not Supported
H7	Social Norms → Purchase Intention → Actual buying behaviour	Indirect effect (N.S.)	Not Supported
H8	Attitude toward purchase → Purchase intention → Actual buying behaviour	Indirect effect (N.S.)	Not Supported

Discussion

This study investigates the structural dynamics of the Theory of Planned Behavior (TPB) to delineate the alignment or divergence between empirical evidence and established theoretical frameworks. The synthesis of these findings offers profound implications for the strategic evolution of OTOP shrimp paste within Thailand's community-based economic systems.

The results substantiate that attitude toward purchase exerts a statistically significant positive influence on Purchase Intention, corroborating the foundational tenets of TPB (Ajzen, 1991; Fishbein and Ajzen, 2011). Positive evaluations encompassing quality, food safety, sensory attributes, and cultural heritage function as primary catalysts for consumer readiness. This aligns with recent scholarship on fermented foods (García-Barón *et al.*, 2025), which emphasizes that perceived authenticity is a vital driver of purchase intention. However, the moderate effect size observed suggests that while attitude is a "necessary" cognitive prerequisite, it remains "insufficient" as a standalone predictor of purchase behavior in this artisanal sector.

Intriguingly, despite high descriptive scores, Subjective Norms (SN) failed to significantly influence purchase intention. This reinforces the scholarly observation that SN is often the least consistent component of the TPB model and is highly context-sensitive (Bosnjak *et al*., 2020). For a staple household commodity like OTOP shrimp paste, consumption is driven by individualized routines and personal taste preferences rather than a pursuit of social validation. As argued by Barbera and Ajzen (2020), the influence of SN diminishes when individuals possess high behavioral control or when the consumption act does not explicitly augment the social image. Thus, for repeat-purchase heritage goods, personal autonomy outweighs external social pressures (Zhang *et al*., 2022).

A pivotal finding of this study challenges the conventional TPB architecture: structural accessibility dominates psychological willpower. PBC emerged as the most potent predictor of both intention and actual behavior in this study. This supports Ajzen's (2002) assertion Ajzen, (2002) that PBC functions as both a proximal determinant of intent and a direct facilitator of behavior, especially when actions are constrained by external resources. The availability of local distribution points, convenience, and confidence in production standards are all decisive factors. These results resonate with Lavuri (2022) and Bosnjak *et al*. (2020), suggesting that in daily consumption contexts, PBC is the critical mechanism for bridging the gap between the mind and market.

The most compelling, yet perhaps most provocative, finding of this study is the total failure of Purchase Intention (BI) to act as a statistical bridge between consumer psychology and actual behavior. While our SEM results confirm that both attitude (ATT) and Perceived Behavioral Control (PBC) are vital in fostering the desire to purchase, the subsequent leap from "wanting" to "buying" is where the traditional TPB sequence disintegrates. In the specific context of OTOP shrimp paste, a commodity defined by its deep cultural roots yet hampered by localized distribution, the cognitive decision-making stage appears to be bypassed entirely.

This term Structural Override." encapsulates our observation that for heritage-based artisanal goods, the practicalities of the market effectively "short-circuit" the psychological planning phase. This empirical disconnection strongly aligns with the skepticism voiced by Sheeran, (2002); Rhodes *et al*. (2022), who posit that internal intentions are essentially powerless without supportive environmental architecture. Our data suggest that in the Thai OTOP market, consumer behavior is a reactive process; when the product is accessible and situational barriers are low, the transaction occurs regardless of prior intentionality.

Conclusions and Recommendations

This study takes the Theory of Planned Behavior a step further through the empirical use of the theory, assisting in illustrating the conventional attitudinal and social pathways of the theory that must be contextually recalibrated when used in traditional and community-based food products, such as OTOP shrimp paste in Thailand. The results showed that the decision-making process of consumers in this industry is not socially negotiated but is more structurally constrained. The fact that subjective norms are minute compared to the significance of habitual consumption and personal familiarity explains why the power of social influence is minimal, whereas the direct impact of perceived behavioral control is very strong, indicating the crucial influence of accessibility, availability, and practical feasibility on actual purchasing behavior. Furthermore, the validated intention-behavior gap indicates that positive intentions are insufficient to participate in the market in traditional product situations. The existence of structural enablers, including effective distribution, convenient locations of sale, and stable supply of products, is essential to changing cognitive preparedness into action. Taken together, these findings provide substantive theoretical value by re-conceptualizing TPB as an access-based paradigm rather than a persuasion-based paradigm, and thus expand consumer behavior theory with a more nuanced view of how structural conditions determine consumption in localized markets.

Managerial implications

The managerial implications are as follows:

Enhancing distribution infrastructure

Policymakers and OTOP entrepreneurs should focus on extending distribution networks beyond localized markets. Structural bottlenecks can be mitigated and products made more available by increasing retail touchpoints, the contemporary presence of trade, and online avenues.

Improving physical and situational access
Because accessibility is a direct determinant of buying behavior, it is important to enhance the location of products, the visibility of the store, and the consistency of logistics. Stabilizing supply chains can help translate passive interest into active purchases.

Creating sensory trust and product confidence
Marketing policies must prioritize product authenticity, quality assurance, and food safety standards. Consumer confidence can be reinforced by sensory education campaigns and standardized packaging.

Aiding reactive purchasing behavior
Since the structural override was witnessed in this study, the strategies should not be directed towards persuasive messaging but rather immediate availability. Consumers tend to buy products when they are readily available, even when they have not planned to do so.

Acknowledgments

The authors express their sincere thanks to the respondents and field enumerators for their valuable participation and assistance in data collection.

Novelty Statement

This study reveals that consumer purchasing of traditional agri-food products is driven more by structural accessibility than by purchase intention, challenging the conventional TPB framework. By identifying a mediation failure of intention, it highlights the dominant role of perceived behavioral control in determining actual buying behavior.

Author's Contribution

Chaiyawit Muangmee: Conceptualization, Data Curation, Formal Analysis, Funding Acquisition, Investigation, Methodology, Resources, Software, Supervision, Visualization, Project Administration
Nusanee Meekaewkunchorn: Formal Analysis, Investigation, Methodology, Resources, Software, Validation, Writing - original draft

Generative AI and AI-assisted technology statement
The authors declare that no generative AI and AI assisted technology was used in the creation of this manuscript.

Conflict of interest
The authors have declared no conflict of interest.

References

Ajzen, I. 1991. The theory of planned behavior. Organ. Behav. Hum. Decis. Proc., 50(2): 179-211. doi: https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. J. Appl. Soc. Psychol., 32(4): 665-683. https://doi.org/10.1111/j.1559-1816.2002.tb00236.x

Bagozzi, R.P. 2000. On the concept of intentional social action in consumer behavior. J. Consum. Res., 27(3): 388-396. https://doi.org/10.1086/317593

Barbera, L.F. and I. Ajzen. 2020. Control interactions in the theory of planned behavior: Rethinking the role of subjective norm. Eur. J. Psychol., 16(3): 401–417. https://doi.org/10.5964/ejop.v16i3.2056

Bosnjak, M., I. Ajzen, and P. Schmidt. 2020. The theory of planned behavior: Selected recent advances and applications. Eur. J. Psychol., 16(3): 352-356. https://doi.org/10.5964/ejop.v16i3.3107

Carrington, M.J., B.A. Neville, and G.J. Whitwell. 2014. Lost in translation: Exploring the ethical consumer intention–behavior gap. J. Bus. Res., 67(1): 2759-2767. https://doi.org/10.1016/j.jbusres.2012.09.022

FAO. 2022. In Brief to The State of World Fisheries and Aquaculture 2022. Towards Blue Transformation. Retrieved from Rome, Italy (https://openknowledge.fao.org/server/api/core/ bitstreams/9c3ed6 a3-c2de-4e4b-b3 15-9ad 6891d8d11/content)

FAO. 2023. The state of food security and nutrition in the world 2023: Urbanization, agrifood systems transformation and healthy diets across the rural–urban continuum. Retrieved from Rome, Italy (https://openknowledge .fao.org/items/445c9d27-b396-4126-96c9-50b335364d01)

Fishbein, M. and I. Ajzen. 2011. Predicting and changing behavior: The reasoned action approach. Psychology press, New York, USA

https://doi.org/10.4324/9780203838020.

García-Barón, S.E., R.P. Carmona-Escutia, E.J. Herrera-López, D.A. Leyva-Trinidad, and A. Gschaedler-Mathis. 2025. Consumers' drivers of perception and preference of fermented food products and beverages: A systematic review. Food., 14(5): 1-25. https://doi.org/10.3390/foods14050713

Hair, J.F., W.C. Black, B.J. Babin, and R.E. Anderson. 2017. Multivariate data analysis Cengage Learning., Boston, Massachusetts, USA.

Hu, M.Y., L. Zhao, H.H. Sun, Y. Xue, X.Z. Mao, and R. Cao. 2024. Recent advances on shrimp paste: Key flavor components and biochemical formation pathways, biogenic amine formation, microbial functions, and innovative process strategies. Trends Food Sci. Technol., 152(2014): 1-17. doi: https://doi.org/10.1016/j.tifs.2024.104694

Kleekayai, T., D. Saetae, O. Wattanachaiyingyong, S. Tachibana, W. Yasuda, M. and Suntornsuk. 2015. Characterization and in vitro biological activities of Thai traditional fermented shrimp pastes. J. Food Sci. Technol., 52(3): 1839-1848 https://doi.org/10.1007/s13197-014-1528-y.

Kornboontritos, S. 2023. Industry Outlook 2023-2025. Processed Seafood Industry. Retrieved from Krungsari Research, Bangkok, Thailand (https://www.krungsri.com/en/research/industry/industry-outlook/food-beverage/processed-seafood/io/processed-seafood-2023-2025)

Lavuri, R. 2022. Extending the theory of planned behavior: factors fostering millennials' intention to purchase eco-sustainable products in an emerging market. J. Environ. Plann. Manag., 65(8): 1507-1529. https://doi.org/10.1080/09640568.2021.1933925

Ling, L., C. Muangmee, N. Meekaewkunchorn, and T. Sattabu. 2025. Successful Internal Marketing Factors on Entrepreneurial of Small and Medium Enterprises in China. Sarhad J. Agric., 41(330): 1275-1275. https://doi.org/10.17582/journal.sja/2025/41.3.1275.1287

Muangmee, C., V. Pongvatnanusorn, K. Sawangcharoen, T. Chaitorn, N. Kassakorn, and S.E. Saqib. 2024. Factors Influencing the Success of Processed Agricultural Products: An Empirical Study from Thailand. Sarhad J. Agric., 40(3): 1033-1045. https://doi.org/10.17582/journal.sja/2024/40.3.1033.1045

Nagashima, F. and H. Kato. 2025. Impacts of One Tambon One Product program on household income in Thailand. J. Entrep. Emerg. Econ., 17(6): 1611-1635. https://doi.org/10.1108/JEEE-10-2024-0466

Ponark, V. and M.M. Ahmad. 2025. One Tambon One Product (OTOP) implementation by the Thai Government. Dev. Pract., 35(1): 60-73. doi: https://doi.org/10.1080/09614524.2024.2408480

Pongsetkul, J., S. Benjakul, P. Sampavapol, K. Osako, and N. Faithong. 2015. Chemical compositions, sensory and antioxidative properties of salted shrimp paste (Ka-pi) in Thailand. Int. Food Res. J., 22(4): 1454-1465.

Rhodes, R.E., A. Cox and R. Sayar. 2022. What predicts the physical activity intention–behavior gap? A systematic review. Ann. Behav. Med., 56(1): 1-20. https://doi.org/10.1093/abm/kaab044

Sheeran, P. 2002. Intention—behavior relations: a conceptual and empirical review. Eur. Rev. Soc. Psychol., 12(1): 1-36. https://doi.org/10.1080/14792772143000003

Teixeira, S.F., B. Barbosa, H. Cunha, and Z. Oliveira. 2022. Exploring the Antecedents of Organic Food Purchase Intention: An Extension of the Theory of Planned Behavior. Sustain., 14(1): 1-13. doi: https://doi.org/10.3390/su14010242

Zhang, T., J. Chen, and K.G. Grunert. 2022. Impact of consumer global–local identity on attitude towards and intention to buy local foods. Food Qual. Prefer., 96(2022): 1-10. doi: https://doi.org/10.1016/j.foodqual.2021.104428