OPEN ACCESS

PETRA IJBS

Petra International Journal of Business Studies
E-ISSN: 2621-6426
VOL. 9, NO. 1, JUNE 2026: 44-57 https://ijbs.petra.ac.id/

Analysis of Young Consumer Loyalty Strategies in the Culinary Business through the SWOT–TOWS Approach and Interpretive Structural Modeling (ISM)

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DOI: https://doi.org/10.9744/petraijbs.9.1.44-57

Received: November 04, 2025 Revised: May 21, 2026 Accepted: June 24, 2026

Abstract

In the digital era, building Generation Z customer loyalty has become a major challenge for culinary businesses due to rapidly changing consumer behavior and the strong influence of social media. This study aims to formulate priority strategies for strengthening young consumer loyalty through an integrated SWOT–TOWS and Interpretive Structural Modeling (ISM) approach. A case study was conducted at Mie ABC using digital audits, field observations, and interviews with business stakeholders and consumers aged 17–25 years. The SWOT–TOWS analysis generated sixteen strategic alternatives, which were further analyzed using ISM and MICMAC to identify hierarchical relationships and strategic priorities. The results indicate that customer feedback utilization, TikTok virality, recipe consistency, and product quality are key drivers in building loyalty. Furthermore, all strategic elements demonstrate high interdependence, suggesting that loyalty is shaped through the synergy of digital marketing, operational excellence, customer experience, and community engagement. These findings provide valuable insights for developing long-term loyalty strategies among young consumers. This study contributes an integrated SWOT–ISM framework and provides practical guidance for culinary SMEs seeking sustainable customer loyalty in a digital marketplace.

Keywords: Customer Loyalty, SWOT- TOWS Analysis, Interpretive Structural Modeling (ISM), Digital Marketing.

INTRODUCTION

The culinary or food and beverage industry is one of the sectors that continues to grow rap-idly and contributes significantly to the Indo-nesian economy development. Based on data from the statistics agency (BPS, 2024), there are about 4.85 million F&B businesses with total sales of IDR 998.37 trillion an increase of over 20% since 2016 and the sector accounted for roughly 39% of non-oil-and-gas GDP in 2024. A 2021 input–output analysis found the F&B industry contributed 23.15% of gross value added in manufacturing, with strong upstream and downstream linkages (IFL 1.1703; IBL 1.2092) (Tamin et al., 2024). This figure shows that the culinary business has a strategic and highly competitive role in facing changes in consumer behavior in the digital era.

A key consumer segment is Generation Z (ages 17–24), them is one of the most influential consumer segments in the digital age. As a generation that has grown up alongside technological advancement, they are deeply engaged with social media and digital platfrom in their daily lives. As a result, their purchasing decisions are heavily influenced by user-generated content, influencer recommendations, and viral trends on platfrom such as TikTok and Instagram (Dobre et al., 2021) In addition to considering a product's functional benefits, Generation Z also pays attention to a brand's symbolic value and how well it aligns with their identity

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How to Cite: Zuliani, S., Pramudia, M.G.R., Amelia, R., Fazlurrahman, H., & Rahmat, D.A. (2026). Analysis of Young Consumer Loyalty Strategies in the Culinary Business through the SWOT–TOWS Approach and Interpretive Structural Modeling (ISM). *Petra International Journal of Business Studies, 9*(1), 44-57

and lifestyle. Theredore, experiences and interactions with their identity and lifestyle. Therefore, experinees and interactions with the brands in the digital space can foster emotional connections that play a crurial role in driving purchasing decisions (Astuti et al., 2024, Ningrum & Roostika, 2021).

Urgency and Purpose of Research

Researchon consumer loyalty in the food and beverage industry has largely focused on consumer satisfaction, promotions and service quality. Meanwhile, tehre is still relatively little research on business strategoes specifically designed to attract and retain young consumers. Generation Z is a consumer group that exerts significant influence on market trands, particulary through their activity on social media. As a generation that has been familiar with digital technology fro an early age, they tend to seek information, compare products, and make purchasing decisions based on content they encounter on digital platfrom, including user reviews and recommendations from ilnfluencers. These characteristics indicate that building an emotional connection with consumers is becoming increasingly important for a brand. According to Rahayu & Ruswanti, 2024 brand experiences that create a positive impression and engage consumers' emotions can increase Generation Z's engagement and loyalty. Aditionally Ridwan et al., 2025) explain that Generation Z not only considers product benefits but also pays attention to brand's authenticity and the quality of the dgital experience provided during interactions woth that brand.

Based on preliminary observations, Mie ABC still faces challenges in building a connection with young consumers. A digital audit conduced via Google Maps, the Website, Instagram, and TikTok shows that Mie ABC's digital activities are not yet operating optimally. Engagement levels with the audience remain low, the amount of user-generated content is very limited, and there are no signs of consistent marketing campaigns specifically targeting Generation Z. Finding from interviews with 10 respondents aged 17 – 25 also indicate that Mie ABC is not yet a widely recognized brand and has not been able to establish a strong emotional connection compared to some competitiors. This situation warrants attention, given that various studies show that active and sustained use of digital marketing through platfrom such as Instagram, TikTok, nad website can increase brand awawreness while driving engagement among young consumers in the food industry (Lumentut, 2024; Kurnia et al., 2025; Puspita et al., 2025).

Studies on online – based culinary MSMEs and food services have shown that consumer loyalty is influenced by various factors, such as service qulity, digital communication, and loyalty programs implemented by companies. However, there remains a lack of research that specifically examines the factors shapping young consumers' loyalty and translates them into structured business strategies. Previous studies generally have not integrated analyses of a company's internal and external factors to determine the most relevant strategic priorities for attracting and retaining young consumers (Indrajaya et al., 2024; Latief et al., 2024).

Based on these conditions, this research was condused to answer the strategic question of how to design an effective strategy to attract and retain consumers aged 17 – 25. This strategy is expexted to not only encourage fleeting purchases influenced by trends but also build stronger relationship so that consumers develop loyal brand customers.

The objectives of this study are:

1. Identify the internal and external strategic factors that influence Mie ABC's ability to attract and retain the loyalty of ypung consumers in the digital age.
2. Determining the most effective strategic priorities for building loyalty among young consumers by mapping the relationships among the strategic factors that influence it.

Proposed Solution

Research on marketing strategies and consumer loyalty in the food industry has been extensively conduced by various researchers using a variety of research approaches and methods. In Indonesia SWOT and TOWS analyses have become standard tools in formulating strategies for culinary SMEs. A study by (Afrianto & Setiawan, 2024) on the Cirebon Mie Koclok SME used SWOT to identify internal and external factors in business development. Similarly, the study by (Sulaiman & Asmawi, 2022) applied SWOT to formulate strategies for enhancing consumer loyalty and profitability, and (Widowati & Andrianto, 2022) used SWOT for culinary business development. All these studies successfully identified strategic factors but did not provide a hierarchical priority for strategy implementation, making it difficult for business owners to determine which strategies should be prioritized first.

On the other hand, Interpretive Structural Modelling (ISM) has been applied to SMEs and businesses in Indonesia, albeit in limited numbers. The most relevant study is by (Adyatama., 2024) for developing a hierarchical sales strategy. ISM was also used for Batik SMEs to prioritize the implementation of a circular economy to improve business performance (Nadiah et al., 2024) In addition, ISM has been applied to the supply chains of Repro MSMEs(Martani & Pujawan, 2026) for operational risk analysis. The ISM method is considered highly capable of mapping priorities and hierarchical relationships among strategic elements however, none of these ISM studies have integrated it with SWOT/TOWS to identify strategic factors based on internal-external environmental analysis. Integrated SWOT and ISM models have been applied in the agroindustry sector using the I'SWOT model and in the field of general strategic management (Herjito & Setiawan, 2021; Mirah, 2018)

Novelty the study is presents a comprehensive combination of SWOT–TOWS and ISM specifically applied to prioritize strategies for Generation Z loyalty in the culinary digital context, producing a data-driven strategy map to enhance brand awareness, digital engagement, and sustainable loyalty.

Literature Review

Customer Loyalty and the Challenges of Customer Regeneration

According to (Oliver, 1997), customer loyalty is a deep-seated commitment by consumers to make repeat purchases or continue using a product or service consistently in the future, despite situational influences and various marketing efforts by competitors that could potentially lead to brand switching. Oliver, 1997 explains that customer loyalty is formed through several stages: cognitive loyalty, affective loyalty, conative loyalty, and action loyalty. Cognitive loyalty arises when consumers recognize a product's advantages based on initial information or experience. Affective loyalty is formed through satisfaction and emotional attachment to a product or service. Furthermore, conative loyalty reflects a strong intention to make repeat purchases, while action loyalty demonstrates the consumer's actual behavior of consistently choosing that product or service over competitors.

In addition, (Kotler, 2016) explains that customer loyalty is closely linked to perceived value, service quality, customer satisfaction, and a company's ability to build long-term relationships with its customers. Customers who have positive experiences tend to have higher levels of trust and satisfaction, which in turn fosters loyalty.

In the context of the local culinary industry, customer loyalty is a key determinant of the sustainability and long-term growth of a business. Loyalty is not only reflected in customer satisfaction with products and services, but also creates revenue stability through repeat purchases and *word of mouth* promotion (Obafemi et al., 2023) However, many culinary businesses face challenges in terms of customer regeneration, especially when the loyal consumer base is dominated by older age groups, while younger consumers exhibit more volatile purchasing behavior and are influenced by the dynamics of digital trends (Kim et al., 2021).

This situation can be seen in the local food business Mie ABC. Although it has been actively promoting itself through various social media platfroms, brand awareness among young consumers remains low. Mie ABC also continues to face challenges in building an emotional connection with customer and maintaining customer loyalty. For consumers aged 17 – 25 purchasing decisions are often influenced by trends that are going voral on platfroms like TikTok. As a result, many consumers make purchases because they have a long-trem connection to the taste, values, or brand identity offered by Mie ABC.

This situation indicates a gap between Mie ABC's digital promotional activities and its ability to build loyalty among young consumers. Its social media presence has not yet been able to generate the desired levels of engagement, emotional connection, and brand loyalty. As a result, brand awareness, emotional attachment, and consumer loyalty have not yet optimally established.

Analysis is needed that can identify the factors that drive loyalty while determining the most effective strategic priorities. The result of thos analysis are expected to help Mie ABC build sustainable loyalty among young consumers, not only by increasing brand awareness but also by fostering long-term relationship with consumers.

METHODS

Stage 1: Reseacrh Preparation

This initial stage focuses on identifying problems and determining the direction of the research. Previous researchers conducted literature studies to understand key concepts such as consumer loyalty, Generation Z

behavior, and the application of SWOT-TOWS and ISM analysis in the context of the culinary business. Research also collected information on company profiles, such as business objectives, vision, and mission, as well as product characteristics. This data was used to gain a deeper understanding of the company's internal consitions and the challenges it faces in building loyalty among young consumers.

Stage 2: SWOT-TOWS Analysis

SWOT analysis was chosen because it is easy to implement and well-suited to the circumstances of MSMEs, which have limited resources. By leveraging data from digital audits and indepth interviews, this method can help identify strategic opportunities and generate relevant recommendations for enhacing digital presence and engagement with young consumers. SWOT method in strategic planning to identify and evaluate internal and external factors that influence an organization's perfomance (Gürel, E & Tat, 2011). Through this analysis, an organization can understand its competitive position and formulate strategis aligned with its objectives. Internal factors include various resources and capabilities that constitute an organization's strengths and weaknesses, while external factors encompass opportunities and weaknesses, while external factors encompass opportunities and threats arising from changes in the business environment (Irawan et al., 2022; Mugiati et al., 2023). Subsequently, the results of this identification are integrated into a TOWS matrix to generate strategic alternatives that can maximize the organization's strengths and opportunities while minimizing its weaknesses and threats (Kukuh et al., 2019; Mukeshimana et al., 2021).

SWOT – TOWS is an effective approach for indetifying a company's internal and external factors and formulating them into actonable strategic alternatives. In the culinary business in the digital age, this approach is considered relevant for helping companies increase loyalty among young consumers through digital marketing, product innovation, collaborations with influencers, and increased consumer engagement (Utami & Nugraha, 2022; Rahman, 2025).

Stage 3: Data & Findings of ISM *(*Interpretative Structure Modeling*)* Strategy

ISM Implementation Stages

Identification of System Elements

Selection of strategic factors that have been formulated from the results of SWOT-TOWS analysis. These elements may include internal strengths, external opportunities, and challenges that influence the direction of the organization's strategy. Identification is carried out through a synthesis of field observations, expert interviews, and digital data analysis to ensure that each factor has empirical relevance to the research context (Attri et al., 2013; Nadiah et al., 2024)

Preparation of the Structural Self- Interaction Matrix (SSIM)

This stage serves to describe the contextual relationships between elements identified in the previous stage. SSIM helps researchers understand the extent to which a factor influences or is influenced by other factors in the system under study(Attri et al., 2013). This is represented using the following symbols:

Reachability Matrix

At this stage, the relationship symbols found in SSIM (V, A, X, O) are converted into binary numerical values, namely 1 to indicate no direct relationship between elements and 0 to indicate no relationship (N. Ahmad & Qahmash, 2021)

Determining the Level or Hierarchy of Elements

At this stage, each factor is classified based on *the reachability set* (a set of factors reached by an element) and *the antecedent set* (a set of factors that can influence the element). The result of this stage is the formation of a hierarchical structure that describes the order of priority between strategic factors.

Construction of the ISM Model

All relationships between elements are visualized in the form of a hierarchical diagram. This diagram shows the cause-and-effect relationships between strategic factors and illustrates the relative position of each element in the system.

MICMAC Analysis (Matrice d'Impact Croise's Multiplication Appliquee a Un Classement)

This stage is used to classify elements based on driving power and dependence power. Based on the results of this analysis, factors will be divided into four categories (M. Ahmad et al., 2019; Attri et al., 2013) namely:

1. Autonomous variables (low influence and low dependence)
2. Linkage variables (high influence and high dependence)
3. Dependent variables (low influence and high dependence)
4. independent variables (high influence and low dependence)

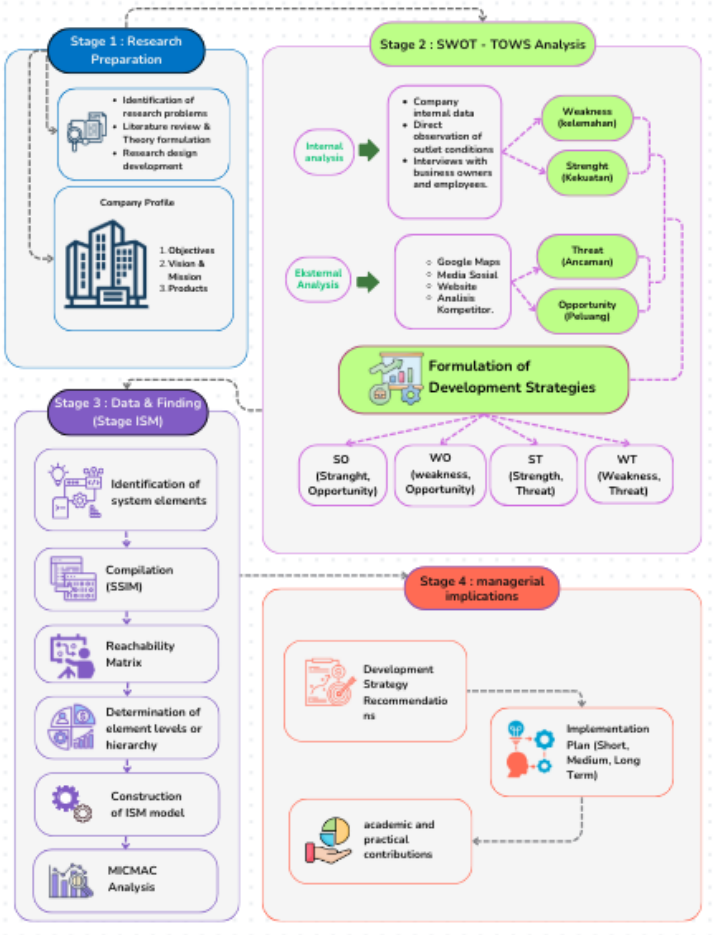

Figure 1. Research flowchart
Source: Author

RESULT

Stage 1 & 2: Initial Analysis & Company Profile

Stage 1 began with problem identification and company profile mapping to understand the actual conditions of Mie ABC as a local culinary business. The brand has builded a loyal customer base, particulary among those over 25 years old, due to their distinctive flavors and affordable prices. However, among Generation Z (ages 17 -15), customer visits are still largely driven by viral trends, prmotions, and social media

recommendations, so brand loyalty has not yet been fully established. In other words, their purchasing decisions are still influenced more by externa factors than by strong attachment to the brand.

Table 1. Result SOWT Strategy

Internal Factor Analysis		External Factor Analysis	
Strengths (S)		**Opportunity (O)**	
Kode	**Description**	**Kode**	**Description**
S1	The distinctive flavor pf its spicy noodles, which ih the brand's defining characteristic.	O1	The trend towrd spicy food and large portions, which is pupolar among Gen Z and Milennials.
S2	Affordable prices with relatively large portions	O2	The widespread use of TikTok and Instagram as promotional platfroms.
S3	Outlets are located in many strategic cities (Kediri, Pare, Blitar, Mojokerto, Jombang, Malang).	O3	Opportunities for expansion into cities with large populations of college students and young professionals.
S4	Good visibility on TikTok with high audience engagement	O4	Collaborations with influencers and food vloggers.
S5	Reaches a wide range of consumer segments, from school and college students to young profesionals and families.	O5	Menu innovation and partnerships with local brands.
Weakness (W)		**Threat (T)**	
Kode	**Description**	**Kode**	**Description**
W1	The taste varies between outlets (sometimes salty, sometimes bland, and sometimes too spicy).	T1	Intense competition with spicy noodle brands and other viral foods.
W2	Service is often slow, long queues, and staff are unresponsive when the outlet is busy.	T2	High expectations due to hype can lead to disappointment.
W3	Outlet comfort standards are inconsistent (toilets, air conditioning, cleanliness).	T3	Negative reviews spread quickly on social media.
W4	Some customers feel overpriced when the experience does not match expectations.	T4	Dependence on trends (FOMO) can quickly fade.
W5	3-star ratings predominantly contain comments like "average" or "hype doesn't match expectations."	T5	Major competitors like Mie G*****n have consistent taste standards, fast service, and regular menu innovations, making them direct competitors.

Table 2. Result SWOT - TOWS Strategy

TOWS		
	Strength (S)	**Weakness (W)**
	Strenght & Opportunity Strategy (S-O)	**Weakness & Opportunity strategy (W - O)**
Opportunity (O)	**(A1)** SO1. Leverage the unique appeal and virality of TikTok (S1, S4) to promote family packages and seasonal menus (O1, O5).	**(A9)** WO1. Use feedback from 3- to 4-star reviews (W1, W5) as input for menu innovation and service improvements (O2, O4).
	(A2) SO2. Designate outlets in major cities as flagship stores (S3, S5) to target students and young professionals (O3).	**(A10)** WO2. Improve outlet facilities (AC, restrooms, cleanliness) (W3) to ensure value for money meets expectations (O3).
	(A3) SO3. Develop FOMO-based promotions such as "spicy challenge" or "limited edition jumbo menu" (S1, S4) to maintain hype (O1, O2).	**(A11)** WO3. Offer student packages or "budget hangout" bundles (W4) to attract the student segment (O1, O3).
	(A4) SO4. Strengthen collaboration with food vloggers & challenge creators (S4) to increase engagement (O4).	**(A12)** WO4. Implement an online reservation/digital queue system (W2) to reduce complaints about long queues (O2).

	Strenght & Threat Strategy (S - T)	Weakness & Threat strategy (W - T)
Threat (T)	**(A5)** ST1. Maintain consistency in taste by adhering to central recipe standards and distributing reasy to use seasoning (S1,S3) to reduce the risk of negative reviews (T2, T3)	**(A13)** WT1. Implement Digital Recipe Standardization ((W1) to ensure consistent taste across all outlets. Establish a quality control team to audit taste at each outlet (T1, T3, T5) plus regular chef training.
	(A6) ST2. Leverage TikTok engagement (S4) to build a community of spicy noodle enthusiasts, then direct them to a WhatsApp group to form a well-maintained, and active community. (T2, T4)	**(A14)** WT2. Implement a Kitchen Display System (KDS) in the kitchen to speed up orders and minimize order errors (W2), thereby reducing the risk of customer complaints (T2,T3).
	(A7) ST3. Promote affordable prices and jumbo portions (S2, S5) to compete with rivals and maintain customer loyalty (T1, T5).	**(A15)** WT3. Implement a Menu Rotation Strategy: limited editions such as Ramadan menus or spicy week (W5) to maintain customer interest (T2, T4).
	(A8) ST4. Select new outlet locations near campuses and public transportation (S3, S5) to anticipate competitors.	**(A16)** WT4. Benchmark customer service from competitors with a target serving time of ≤7 minutes (W2, W3) to anticipate direct comparisons (T1, T2, T5).

Stage 2 involved field observations and interviewa with the owner, manager, and 10 consumers. The result indicated that young consumers' loyalty to Mie ABC has not yet been optimally formed. In addition to purchasing decisions still being influenced by trends, several respodents also stated that they rarely found information about Mie ABC on social media. This situation indicates the brand's limited digital exposure and served as the basis for a SWOT analysis to formulate strategies to increase young consumers' loyalty. This led to the decision to conduct a SWOT analysis to identify internal and external factors affecting Mie ABC's competitiveness and to prepare the basis for strategy formulation using the TOWS matrix.

Stage 3: ISM (Interpretative Structure Modeling) Phase

Self Interaction Matrix (SSIM)

Interpretive Structural Modelling (ISM) relies primarily on expert judgment to establish contextual relationships; as ISM's developer (Warfield, 1974) (ISM developer) and later commentators (Simpson, Joseph J, 2017) emphasize, the quality of expert input matters more than the number of respondents.
Recent ISM studies confirm this standard: (Amali Çipi et al., 2023) "data validity comes from role diversity, not sample size" using exactly 3 respondents (Durroh et al., 2025) study confirmed that "triangulation ensures objectivity" through multiple stakeholder perspectives. In this study the SSIM was developed from the judgments of three key respondents with complementary expertise (1) the business owner (strategic perspective), (2) the operational/marketing manager (operational-digital perspective), and (3) loyal consumers (user-experience perspective) a design that meets ISM methodological standards by prioritizing expertise quality and role diversity to produce unbiased, multi-perspective inputs for formulating customer loyalty strategies.

Based on the results of the Structural Self-Interaction Matrix (SSIM), it can be observed that the relationships among the strategy elements (S1–S16) exhibit varying degrees of interconnection, encompassing both direct and reciprocal influences. Most relationship between elements are represented by the symbols V and X. The symbol V indicates a direct influence of one element on another, while the symbol x indicates a reciprocal relationship between the two elements. These findings suggest the the strategic factors analyzed are interrelated and from a complex system, such that a change in one factor has the potential to affect the others.

The relatibely limited occurrence of the A symbol suggests the presence of elements that are more influenced by other elements then they influence them, while the O symbol indicates a weak or insignificant relationship. Overall, the relationship patterns in the SSIM reveal strong strategic interconnections matrix and condusting a hierarchical analysis in the next stage.

Table 3. Structural Self Interaction Matrix (SSIM) of strategies

Elemen	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16
A1	—	V	V	X	X	V	V	A	A	A	A	X	A	A	X	A
A2	—	—	V	V	A	V	X	X	A	A	A	X	A	A	X	A
A3	—	—	—	X	A	V	X	X	A	A	A	X	A	A	X	A
A4	—	—	—	—	X	X	X	X	V	A	A	X	X	A	A	A
A5	—	—	—	—	—	V	X	X	X	X	X	V	X	V	V	X
A6	—	—	—	—	—	—	O	A	A	V	X	X	A	X	X	X
A7	—	—	—	—	—	—	—	X	X	X	X	X	A	X	X	V
A8	—	—	—	—	—	—	—	—	O	A	X	X	X	V	X	X
A9	—	—	—	—	—	—	—	—	—	V	X	V	V	X	X	X
A10	—	—	—	—	—	—	—	—	—	—	V	X	X	V	V	X
A11	—	—	—	—	—	—	—	—	—	—	—	X	X	X	X	X
A12	—	—	—	—	—	—	—	—	—	—	—	—	V	X	V	X
A13	—	—	—	—	—	—	—	—	—	—	—	—	—	V	V	X
A14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	V	X
A15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X
A16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Initial Reachability Matrix (IRM) and Final Reachability Matrix (FRM)

The next step is to form *the Initial Reachability Matrix* (IRM) by converting the relationship symbols into binary numbers (0 and 1) to produce a square matrix as shown in Table 5. The conversion process is carried out based on the following conditions:

- If the entry (i, j) in the SSIM has a value of V, then the entry (i, j) = 1 and (j, i) = 0 in the IRM.
- If the entry (i, j) in SSIM has a value of A, then entry (i, j) = 0 and (j, i) = 1 in IRM.
- If the entry (i, j) in SSIM has a value of X, then both entries (i, j) and (j, i) have a value of 1 in IRM.
- If the entry (i, j) in SSIM has a value of O, then both entries (i, j) and (j, i) have a value of 0 in IRM.

Table 4. Initial Reachability Matrix (IRM)

Elemen	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16
A1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	1	0
A2	0	1	1	1	0	1	1	1	0	0	0	1	0	0	1	0
A3	0	0	1	1	0	1	1	1	0	0	0	1	0	0	1	0
A4	1	0	1	1	1	1	1	1	1	0	0	1	1	0	0	0
A5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A6	0	0	0	1	0	1	0	0	0	1	1	1	0	1	1	1
A7	0	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1
A8	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1
A9	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1
A10	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1
A11	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
A12	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1
A13	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
A14	1	1	1	1	0	1	1	0	1	0	1	1	0	1	1	1
A15	1	1	1	1	0	1	1	1	1	0	1	0	0	0	1	1
A16	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1

IRM only describes direct relationships between strategies, without considering indirect influences that may occur through other strategies. Therefore, to obtain a more comprehensive picture of the inter-

relationships, the transitivity rule is applied, namely if strategy influences strategy j, and strategy j influences strategy k, then logically strategy also influences strategy k (Santos et al., 2023).

Table 5. Final Reachability Matrix (FRM)

Elemen	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16
A1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A3	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A4	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A6	0	0	0	1	0	1	0	0	0	1	1	1	1	1	1	1
A7	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
A8	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1
A9	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1
A10	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1
A11	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
A12	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1
A13	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
A14	1	1	1	1	0	1	1	0	1	0	1	1	0	1	1	1
A15	1	1	1	1	0	1	1	1	1	0	1	0	0	0	1	1
A16	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1

Based on the results of the Final Reachability Matrix (FRM), it is evident that all strategy elements (A1–A16) exhibit a very high degree of interconnection, both directly and indirectly. This condition reflects a strong level of strategic integration and interdependence, where each element mutually influences and reinforces the others within the system. Elements A1, A5, and A11 are key factors because they have high driving power and play a role in determining the overall strategic direstion. Meanwhile, Only a few elements act as recipients of influence. This indicates that the strategic system under analysis is interconnected, such that changes in one element can effect other elements within the system.

Determining the Hierarchy of Elements

The canonical matrix result show that strategies A1 (leveraging TikTok's virality) and A5 (recipe standardization and product quality) have the highest driving power of 16, indicating that they are the most influential strategies in influencing the success of other strategies. On the other hand, A6 has the lowest driving power (9), so its contribution to system change is relatively small. In terms of dependency, A11, A15, and A16 have the highest values (16), indicating that the success of these strategies is highly dependent on the implementation of other strategies. Meanwhile, A9 has the lowest dependency (11), indicating a higher level of independent compared to other elements.

The ISM hierarchical structure results reinforce these findings by palcing A9 (leveraging customer feedback for innovation and service improvement) at Level 6 as the root driver that serves as the basis for developing other strategies. Furthermore, A1, A5, and A10 are at Level 5 as the primary strategic drivers that translate customer needs into improved product quality, services, and promotions. Conversely, A11, A15, and A16 are the level 1 as the primary outcomes, representing the final results of strategy implementation at the previous levels.

This finding indicates that a high driving power value does not necessarily place an element at lower hierarchical place an element at a lower hierarchical level. Level position in the ISM is determined by the structural relationships between elements through the processes of reachility and partitioning, while driving power dependence describes the strength of influence and the degree of interdependence of each element. Therefore the two analyzes complement each other in explaining strategy implementation priorities, where companies need to start with A9 as the root factor strengthen A1 and A5 as the primary drivers, before optimizing outcome oriented strateges such as A11, A15, and A16.

Table 6. Canonical Matrix

Elemen	Driving Power	Dependence	Rank	Hirarki/Level
A1	16	12	1	5
A2	15	13	2	4
A3	14	15	3	2
A4	15	15	2	2
A5	16	12	1	5
A6	9	14	6	3
A7	14	14	3	3
A8	14	13	3	4
A9	14	11	3	6
A10	14	12	3	5
A11	15	16	2	1
A12	14	14	3	3
A13	14	14	3	3
A14	12	15	4	2
A15	11	16	5	1
A16	15	16	2	1

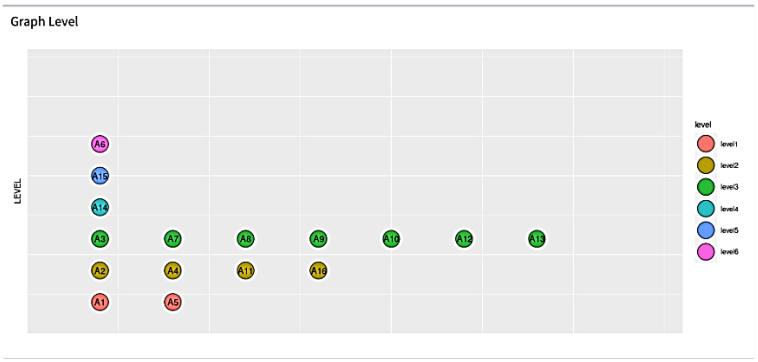

Figure 2. Graph Level

Analysis MICMAC

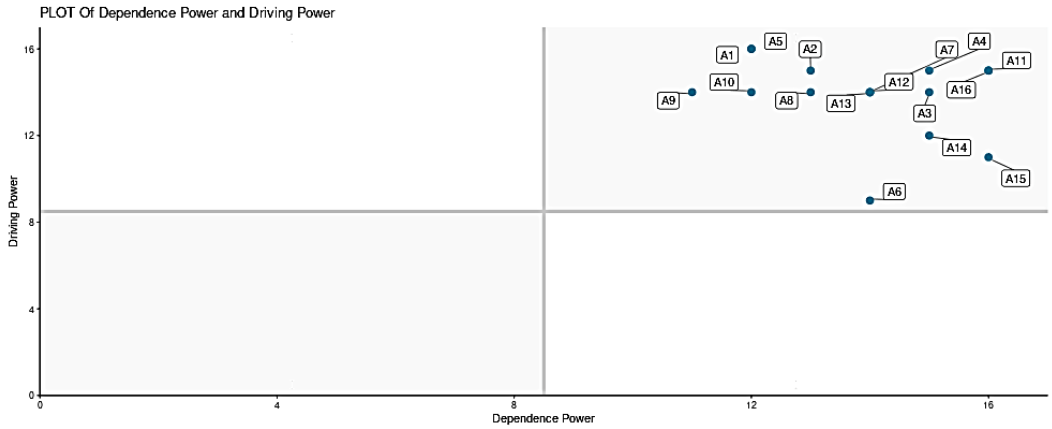

Figure 3. Graph ISM MICMAC

The MICMAC (Cross-Impact Matrix Multiplication Applied to Classification) analysis aims to classify the relationship between the level of influence (driving power) and dependency power of each strategy element (A1 – A16). In general. Most elements aret in the upper right quadrant, indicating that they have equally high levels of driving power and dependence power. This condition indicates that the analyzed strategy system is

highly interconnected, where each element does not stand alone but instead influences and is influenced by other elements. Futhermore, no elements are found in the automous quadrant (low driving power-low dependence), confirming that all strategies play a role in the system.

When compared t the canonical matrix result and the ISM hierarchical structure, this graph reinforces the finding that A1 and A5, with the highest driving power (16), act as primary drivers of the system, consistent with their position in the upper-right area of the graph. A9 remains the root driver in the ISM hierarchical structure, although it does not always occupy the most extreme position in the graph, as the determination of ISM levels is based on reachability of ISM levels is based on reachability and structural dependency realtionships, not simply the magnitude of ifluence. Thus, despite the differences between numerical power and hierarchical position, the two complement each other in explaining the system.

ISMP graph confirm that the strategic system is interconnected without any independent elements, with A1 and A5 as the primary drivers, A9 as the structural doundation of the system, and A11, A15, and A16 as the final outputs representing the result of the phased strategy implementation. Therefore, the combination of the canonical matrix and the ISM hierarchical structure provides a more comprehensive understanding, where driving power xplains the level hierarchy explains the order and working mechanism of this influence in the entire strategic system.

DISCUSSION

The ISM result show that all strategy elements (A1 – A16) have equally high driving power and dependence values. This indicates a circular and interdependent relationship, rather than a hierarchical structure dominated by a single factor. Thus, each element not only acts as an influencer but also receives influence from other element not only acts as an influencer but also receives influence from other elements simultaneously. This finding aligns with literature emphasizing the interpendence of complex systems (Simpson & Simpson, (2015) and Sreenivasan et al., (2023)), where Gen Z loyalty is formed from a combination of digital promotions, customer experience, and brand value (Hughes et al., 2020).

The managerial implications of finding are as follows :

a. A strategic approach must be integrated, as no single element can work effectively in isolation to build loyalty (Kumar & Reinartz, 2016; Primasari & Dwita, 2025)
b. Digital promotion needs to be aligned with quality and experience to convert exposure into long term loyalty (Islam & Sheikh, 2024; Prakoso et al., 2023)
c. Cross-aspect collaboration and innovation a crucial, such as collaborating wth content creators, launching limited – edition menus, and developing digital communities to increase consumer engagement (Ibáñez-Sánchez et al., 2022; Kumar & Reinartz, 2016; Martínez-López et al., 2021)
d. System are interconnected, so changes in pne strategy will impact the entire loyalty ecosystem (Simpson & Simpson, 2015; Sreenivasan et al., 2023)

For futher research: Expand the sample of respondents to better represent the diversity of customer characteristics and combine the ISM method with MICMAC or SEM to obtain a more in-depth and comprehensive causal relationship analysis (Attri et al., 2013).

CONCLUSIONS

Interpretive Structiral Modeling (ISM) shows that customer oyalty strategy development in the culinary business has a multi-level structure, starting from basic driving factors to outcome – oriented strategies. At the most basic level, the main factors that must be strengthened first are product differentiation (unique flavors), strong digital virality, outlet positioning as a flagship store, and recipe consistency. These four elements serve as the foundation because they have a significant influence on all other strategies in the system.

At the middle level, there are linkage strategies, such as improving outlet facilities, implementing a digital queuing system, and standardizing recipe control. Strategies at this level have a dual charaster they can influence other strategies while also being influenced by the basic factors, thus playing a crucial role in maintaining the stability of the overall system. Meanwhile, at a higher level, there are strategies that tend to be outcome-oriented, such as menu rotation, implementing a Kitchen Display System (KDS), and building a community through digital platforms. These strategies are highly dependent on the strength of lower-level factors, so their success cannot stand alone without the support of a strong foundation.

From a managerial perspective, these results provide clear priority direction: the company needs to first ensure strengths in product differentiation and operational consistency, such as recipe standardization and service process reliability, before expanding its focus to promotional strategies, digital engagement, and community building. Practically, this strategy hierarchy has been discussed and adapted with Mie ABC as a basis for operational decision-making.

Theoretically, this study demonstrates that ISM can uncover the structural relationships between strategies in building customer loyalty in the culinary MSME context. This study also develops an integrative SWOT–ISM framework that connects strengths, weaknesses, opportunities, and threats into a hierarchical strategy structure. This can serve as a conceptual model for further research, empirical validation, and future simulation development.

AI DISCLOSURE STATEMENT

During the preparation of this work, the authors used Perplexity in order to assist in literature search and categorization, DeepL to improve the language and readability of the manuscript, and ISM software to assist in data processing and structural modeling. After using these services, the authors reviewed and edited the content as needed and take full responsibility for the integrity and final conclusions of the published article.

ACKNOWLEDGMENT

The author would like to thank the lecturers and staff of the Digital Business Study Program for their guidance and support throughout this research. He also expresses his sincere appreciation to his parents for their prayers, support, and encouragement, which ensured the successful completion of this research.

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