# Modeling the Factors Affecting Consumer Buying Behaviour: A TISM Approach

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Cultural factors are essential in shaping consumer buying behavior, impacting preferences, values, and purchasing choices (Islam & Khan, 2024; Paul, 2024; Turkson et al., 2024; Sadeqi & Roozmand, 2024). Culture includes the shared beliefs, customs, and traditions within a group, which can differ widely across societies. Subcultures—such as religious, ethnic, or regional groups—add further layers, creating distinct consumer segments with unique purchasing patterns. Social class, influenced by factors like income, education, and occupation, also shapes access to resources and brand choices.

#### 1. Introduction

Consumer buying behavior encompasses the decision-making processes and actions that individuals engage in when choosing, purchasing, using, and disposing of products and services (Islam & Khan, 2024; Paul, 2024; Turkson et al., 2024; Sadeqi & Roozmand, 2024; Zaman & Kusi-Sarpong, 2024; Soliman et al., 2024; Singh et al., 2024; Gupta et al., 2024; Laradi et al., 2024; Radhi & Al Mubarak, 2024; Chaudhary et al., 2024; Boutaleb, 2024; Baidoun & Salem, 2024; Bravo et al., 2024; Ngo et al., 2024; Alnahhal et al., 2024; Alghamdi & Agag, 2024; Karmaker et al., 2024; Minh & Quynh, 2024; Makhrout & Chouhbi, 2024; Nguyen, 2024; Toudeh Bahambari et al., 2024; Dorokhova et al., 2024; NS & Khandai, 2024). This behavior is shaped by a complex array of influences, including cultural, social, personal, and psychological factors. Cultural values, beliefs, and traditions play a role, as do the views and opinions of family, friends, and social groups (Singh et al., 2024; Gupta et al., 2024; Laradi et al., 2024; Radhi & Al Mubarak, 2024; Chaudhary et al., 2024; Bravo et al., 2024; Ngo et al., 2024; Alnahhal et al., 2024; Karmaker et al., 2024; Minh & Quynh, 2024; Makhrout & Chouhbi, 2024; Nguyen, 2024; Toudeh Bahambari et al., 2024; NS & Khandai, 2024). Additionally, personal attributes such as age, occupation, and financial status significantly influence preferences. Psychological factors, including motivation, perception, and attitudes, also impact how consumers perceive and evaluate products and brands. External influences, such as marketing tactics, technological innovations, and situational contexts like timing or the shopping environment, further steer their decisions. By understanding consumer behavior,

businesses can better align their products, services, and marketing strategies to fulfill customer needs and preferences effectively (Paul, 2024).

"Consumer behavior encompasses the study of the processes individuals or groups undergo when they choose, buy, use, or discard products, services, ideas, or experiences to meet their needs and desires." (Solomon, Bamossy, Askegaard & Hogg, 2006, pp. 3)

#### 2. Factors Identified

Several factors influence consumer buying behavior. Here are ten key elements that play a crucial role in shaping consumers' purchasing decisions:

#### i. Cultural Factors

Cultural factors are essential in shaping consumer buying behavior, impacting preferences, values, and purchasing choices (Islam & Khan, 2024; Paul, 2024; Turkson et al., 2024; Sadeqi & Roozmand, 2024). Culture includes the shared beliefs, customs, and traditions within a group, which can differ widely across societies. Subcultures—such as religious, ethnic, or regional groups—add further layers, creating distinct consumer segments with unique purchasing patterns. Social class, influenced by factors like income, education, and occupation, also shapes access to resources and brand choices. Recognizing these cultural distinctions enables companies to adapt their marketing strategies to connect with specific consumer segments, fostering stronger customer engagement and boosting sales.

#### ii. Social Factors

The social factor is a major influence on consumer buying behavior, encompassing a person's social groups, networks, online connections, and family (Zaman & Kusi-Sarpong, 2024; Soliman et al., 2024). Word-of-mouth communication is a vital part of this factor, strongly affecting consumer choices. According to Kotler, a group is "two or more people who interact to accomplish individual or mutual goals." He clarifies that "groups that directly influence and to which a person belongs are called membership groups, whereas reference groups serve as points of comparison, either directly (face-to-face) or indirectly, in shaping a person's attitudes or behavior. Often, individuals are influenced by reference groups they do not belong to" (Kotler et al., 2017, p. 144).

Kotler and Keller explain that "some of these groups are primary groups, with whom a person interacts fairly continuously and informally, such as family, friends, neighbors, and coworkers. People also belong to secondary groups, such as religious, professional, and trade-union groups, which are more formal and require less continuous interaction" (Kotler & Keller, 2016, p. 191). This social context plays a key role in shaping consumer preferences and behaviors.

Word-of-mouth is among the most powerful influences on consumer buying behavior. Individuals tend to be more influenced by recommendations from family and friends than by sales representatives or other external sources. Trust is a central factor in this dynamic, as people are more inclined to trust advice from familiar sources. Family, in particular, holds a vital place in shaping preferences; their suggestions and recommendations often carry significant weight, strongly impacting consumer choices.

Kotler highlights "the impact of the personal words and recommendations of trusted friends, family, associates, and other customers on buying behavior" (Kotler et al., 2017, p. 144). In the digital age, people spend significant time on online social media, which expands their social networks and influences their opinions and choices. Platforms like social media sites and blogs play an essential role in shaping consumer opinions and recommendations. Recognizing this, companies are increasingly leveraging online social media to effectively reach and engage their customers (Kotler et al., 2017, p. 145).

#### iii. Personal Factors

Personal factors are among the most significant influences on consumers' purchase decisions for everyday products and should be a key consideration for marketers (Kotler & Keller, 2016, p. 183; Kotler et al., 2017, p. 147). These factors include age, life stage, occupation, personality, lifestyle, and values, all of which shape consumer preferences (Singh et al., 2024; Gupta et al., 2024). Personal factors can influence buying decisions both directly and indirectly, with some factors having an immediate impact while others subtly affect purchasing behavior.

Consumer buying behavior is dynamic and evolves with changes in age, life stages, and relationships. As people grow older, their preferences and purchasing decisions shift. For instance, a 70-year-old is less likely to buy a sports car and may instead prefer a family car. Marketers often segment consumers by age groups—such as 12 and under, 13 to 18, 19 to 26, 27 to 35, 36 to 50, and over 50—acknowledging that buying behavior varies at each stage.

"Likewise, various life cycle stages—such as marriage, divorce, having children, children leaving for college, and retirement—significantly impact consumer choices. For example, purchasing preferences often shift after marriage, with the arrival of children, or as children grow up and move out. Companies frequently adjust their target markets and marketing strategies to align with these life stages and age groups. In some instances, products are specifically designed to meet the needs of consumers at different life stages, ensuring that offerings evolve to support customers' changing requirements (Kotler et al., 2017, p. 147)."

## Occupation

Occupation refers to the type of work an individual performs and is defined as "a set of jobs whose main tasks and duties share a high degree of similarity" (N.A., 2012). As a key personal factor influencing consumer buying behavior, occupation plays a crucial role in shaping purchasing decisions (Laradi et al., 2024; Radhi & Al Mubarak, 2024). Companies must consider consumers' occupations when setting prices or developing new products. Occupations such as doctors, engineers, teachers, businesspeople, drivers, and students can affect how individuals approach buying choices. For example, a businessperson may be more likely to purchase higher-end products or services compared to other professionals. Understanding these occupational differences enables companies to tailor their offerings to meet the varied needs and spending capacities of different consumer groups (Kotler & Keller, 2016, p. 185; Kotler et al., 2017, p. 148).

## Personality

Kotler defines personality as "the unique psychological characteristics that distinguish a

person or group." Personality is typically described by traits such as self-confidence, dominance, sociability, autonomy, defensiveness, adaptability, and aggressiveness (Kotler et al., 2017, p. 150). When consumers choose one branded product over another, it often reflects certain aspects of their personality (Chaudhary et al., 2024; Boutaleb, 2024). Likewise, brands themselves have distinct personalities. Kotler and Keller describe "brand personality" as the combination of human traits associated with a brand (Kotler & Keller, 2016, p. 185). In her research on "Dimensions of Measuring Brand Personality," Jennifer Aaker identified five core traits that define brand personalities.

- Sincerity (down-to-earth, honest, wholesome and cheerful)
- Excitement (daring, spirited, imaginative and up-todate)
- Competence (reliable, intelligent and successful)
- Sophistication (glamorous, upper class and charming)
- Ruggedness (outdoorsy and tough) (Kotler et al., 2017, pp. 150.)

## iv. Psychological Factors

Psychological factors, often referred to as internal factors (Ali & Ramya, 2016), significantly influence consumer buying behavior. These factors are closely linked to a consumer's environment (Baidoun & Salem, 2024; Bravo et al., 2024), which can have a profound impact on their purchasing decisions (Kotler & Keller, 2016, p. 187). Consumers are often swayed by the buying choices of others, such as friends, family, or colleagues (Rani, 2014). The enthusiasm surrounding a newly launched product is often driven by environmental influences, which are deeply rooted in psychological processes. Many companies strategically capitalize on these psychological factors, including motivation, perception, learning, and memory (Kotler & Keller, 2016, p. 187), as they are crucial in shaping how consumers perceive and react to products. Every individual has a range of needs, starting with fundamental necessities. Kotler defines a motive as "a need that is sufficiently pressing to drive a person to seek satisfaction" (Kotler et al., 2017, p. 150). Psychologists have developed various theories to explain human motivation, with Abraham Maslow's theory being one of the most well-known. Maslow's theory aims to explain why individuals are driven by certain needs at specific times (Kotler & Keller, 2016, p. 188). His model, Maslow's Hierarchy of Needs, organizes human needs from the most basic to the most complex. The hierarchy demonstrates how individuals move through different levels of needs, beginning with physiological needs and progressing to self-actualization.

#### Perception

Perception, influenced by motivation, plays a vital role in shaping how consumers respond to products. When a motivated individual reacts positively to a product, it creates a positive perception, while a negative response leads to a negative perception. As a key psychological factor, perception has a significant impact on consumer buying behavior. Kotler et al. define perception as "the process by which we select, organize, and interpret information inputs to create a meaningful picture of the world" (Kotler et al., 2019). Perception is formed by gathering information through the senses—touch, smell, hearing, taste, and sight. Consumers acquire information from their environment, which shapes how they perceive a product (Kotler *Nanotechnology Perceptions* Vol. 20 No. S16 (2024)

& Keller, 2016, p. 190). For example, one person may find fast driving exhilarating, while another may view it as dangerous. As a result, companies should ensure clear communication of product specifications and focus on fostering a positive perception to enhance consumer appeal.

## Learning

Learning is the process through which an individual responds to a situation based on past experiences. A person's actions are often shaped by what they have learned previously, making learning a crucial factor in understanding behavior. Learning theorists suggest that it results from the interaction of drives, stimuli, cues, responses, and reinforcement (Kotler & Keller, 2016, p. 191). Washburne (1936) defines it as "an increase, through experience, of problem-solving ability." This ongoing process affects how consumers make decisions and engage with products and services in the marketplace.

#### Beliefs and Attitudes

Consumers' core beliefs and attitudes toward brands or products play a significant role in shaping their behavior. Working memory refers to the limited capacity to temporarily store information in an accessible state, making it useful for various tasks (Adams, Nguyen, & Cowana, 2018). Kotler and Keller note that "cognitive psychologists distinguish between short-term memory (STM)—a temporary and limited store of information—and long-term memory (LTM)—a more permanent and essentially unlimited store" (Kotler & Keller, 2016, p. 193). This distinction emphasizes the different functions that short-term and long-term memory serve in processing and retaining information.

#### v. Lifestyle

Lifestyle reflects how a person lives their life, showcasing their unique approach to the world. Each individual has a distinct lifestyle (Ngo et al., 2024; Alnahhal et al., 2024). Kotler defines lifestyle as "a person's pattern of living as expressed in their activities, interests, and opinions." This encompasses various aspects, such as activities (work, hobbies, shopping, sports, and social events), interests (food, fashion, family, and recreation), and opinions (views on social issues and business products). A person's lifestyle shapes their image within society, and when consumers purchase products, they are often buying into a specific lifestyle as well. Companies can use insights from consumer lifestyle studies to create effective marketing strategies and customize products for their target audience. Understanding lifestyle as a personal factor provides valuable insights into consumer buying behavior (Kotler et al., 2017, p. 149). A consumer's lifestyle, including their activities, interests, and opinions, influences the types of products and services they choose to buy.

## vi. Personality and Self-Concept

Personality and self-concept play a crucial role in influencing consumer buying behavior by affecting how individuals perceive themselves and their preferences for specific products or brands (Alghamdi & Agag, 2024; Karmaker et al., 2024). Personality traits like self-confidence, sociability, and openness to experience shape consumers' purchasing choices and brand loyalty. For example, an extroverted person may be drawn to bold, vibrant products that reflect their social nature, while an introverted person might prefer more understated or

minimalist options. Self-concept, which includes an individual's self-image and the way they wish to be seen by others, also influences purchasing decisions. Consumers often select products that resonate with their self-identity or the image they want to project, making personality and self-concept important factors for marketers aiming to engage with their target audience.

## vii. Marketing and Advertising

Marketing and advertising have a significant influence on consumer buying behavior by shaping perceptions, raising awareness, and swaying preferences for products and brands (Minh & Quynh, 2024; Makhrout & Chouhbi, 2024). Effective marketing strategies leverage various channels, such as television, social media, and online platforms, to reach consumers and deliver key messages. Advertisements that evoke emotions or emphasize a product's unique features and benefits can strongly influence purchasing decisions. Additionally, promotional tactics like discounts, loyalty programs, and limited-time offers create urgency and motivate consumers to make quicker purchase decisions. In the end, well-executed marketing and advertising campaigns not only inform consumers but also foster brand loyalty and boost sales, making them essential for consumer engagement. Effective marketing and advertising strategies generate awareness, build interest, and significantly shape consumer preferences.

#### viii. Economic Factors

The economic factors are a key influence on consumer buying behavior. A consumer's economic situation plays a crucial role in their purchasing decisions and the selection of particular brands or products (Nguyen, 2024; Toudeh Bahambari et al., 2024). Companies can study consumer spending and saving patterns to gain insights into this influence. For instance, Samsung provides a variety of mobile devices at both high and low price points to appeal to different consumer segments.

Several economic factors impact buying behavior, including personal income, family income, income expectations, savings, consumer credit, and other economic variables (Ali & Ramya, 2016). Personal income refers to an individual's earnings, which influence purchasing decisions based on net income after taxes. Family income represents the combined earnings of all working family members. Income expectations include potential earnings from sources like bonuses or overtime.

Savings represent the money remaining after covering monthly expenses, while consumer credit refers to funds provided by banks or financial institutions, with credit cards being a common form. Other economic factors, such as inflation, economic downturns, and government policies, also influence consumer behavior. If a person's income is low, they may find it difficult to purchase expensive products, highlighting the direct link between income and purchasing power. Price-conscious consumers tend to weigh the cost against the perceived value, significantly impacting their buying decisions.

## ix. Technology and Innovation

Technology and innovation play a crucial role in shaping consumer buying behavior by changing how people research, evaluate, and purchase products (Dorokhova et al., 2024; NS & Khandai, 2024). The widespread use of the internet and mobile devices has made *Nanotechnology Perceptions* Vol. 20 No. S16 (2024)

information more accessible, enabling consumers to compare prices, read reviews, and explore product features before making a purchase decision. E-commerce platforms and mobile apps have simplified the shopping process, allowing consumers to shop conveniently from anywhere at any time. Furthermore, innovations such as personalized recommendations, virtual reality, and augmented reality enhance the shopping experience by offering tailored solutions that align with individual preferences. As consumers become increasingly techsavvy, their expectations for smooth, efficient, and personalized shopping experiences continue to rise, prompting businesses to innovate and adapt to remain competitive. Access to and familiarity with technology greatly influences consumers' ability to research products and make well-informed decisions.

#### x. Situational Factors

Situational factors play a significant role in shaping consumer buying behavior by influencing the context in which purchasing decisions occur (Soliman et al., 2024; Singh et al., 2024). These factors include the physical environment, such as store layout, ambiance, and product placement, which can affect a consumer's mood and purchasing intentions. Time pressures, such as shopping during a busy workday or making a last-minute gift purchase, also influence decision-making. Additionally, special occasions, such as holidays or sales events, can create a sense of urgency and lead consumers to make purchases they might not have otherwise considered. By understanding these situational factors, marketers can develop targeted strategies that enhance the shopping experience and encourage consumers to engage with products at the optimal moment.

## 3. Research methodology

Total Interpretive Structural Modelling (TISM) is a systems-based methodology designed to identify and analyze complex relationships among elements within a system (Singh et al., 2024; Zahidi & Feroz, 2024; Manayath & Dulari, 2024; Singh et al., 2024; Singh & Dhir, 2024; Chilayil et al., 2023; Kumar & Rao, 2023; Raut et al., 2023; Singh & Sharma, 2023; Pal et al., 2022; Kumar & Aggarwal, 2021; Rizvi et al., 2019; Sangwa & Sangwan, 2018; Sushil, 2017). Originating from Interpretive Structural Modeling (ISM), TISM advances its predecessor by incorporating an interpretive dimension, which provides a deeper understanding of the interconnections among factors (Manayath & Dulari, 2024; Singh et al., 2024; Singh & Dhir, 2024; Chilayil et al., 2023; Kumar & Rao, 2023; Raut et al., 2023; Singh & Sharma, 2023; Pal et al., 2022; Kumar & Aggarwal, 2021; Rizvi et al., 2019; Sangwa & Sangwan, 2018; Sushil, 2017). By constructing a hierarchical framework of interactions, TISM proves particularly effective for issues characterized by high interdependence among elements (Raut et al., 2023).

TISM's core strength lies in its interpretive approach, extending beyond ISM's structural model by actively involving experts to interpret relationships, thus allowing a more nuanced, context-sensitive understanding. This interpretive dimension is particularly useful in decision-making processes that depend on subjective judgments, as TISM not only reveals direct connections but also clarifies how and why these relationships exist (Kumar & Aggarwal, 2021).

The TISM process involves several key stages: identifying essential variables, conducting pairwise comparisons, creating a structural self-interaction matrix (SSIM), and, finally, constructing a digraph that illustrates the hierarchical structure of interrelationships (Pal et al., 2022). This methodology has been successfully applied in diverse areas such as supply chain management, project management, and social science research, where a clear understanding of interdependencies is vital for effective decision-making.

Recent studies underscore TISM's effectiveness in tackling complex, multi-dimensional issues by offering a structured framework for visualizing and analyzing interdependencies. In social and behavioral sciences, TISM has gained attention for its ability to model dynamic systems, including areas like social media influence, organizational behavior, and societal norms (Singh & Sharma, 2023).

In conclusion, TISM is a versatile and robust method for modeling complex systems, providing both structural clarity and interpretive insight. Its increasing use across various domains highlights its relevance in contemporary research and decision-making practices.

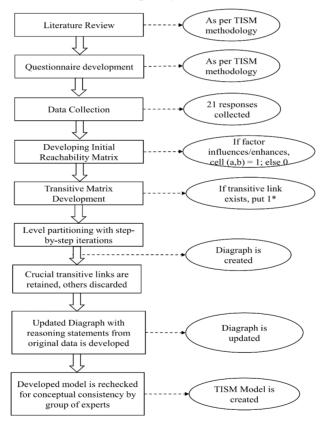


Figure 1: Flow of TISM Model

Interpretive Structural Modeling (ISM) is a powerful tool for analyzing complex scenarios where multiple elements are deeply interwoven (Rizvi et al., 2019). Addressing the need for a comprehensive evaluation framework in qualitative research, Total Interpretive Structural Modeling (TISM) builds upon ISM by introducing interpretive analysis for each relationship, *Nanotechnology Perceptions* Vol. 20 No. S16 (2024)

making the model fully interpretive. TISM retains the benefits of ISM while enabling a structured inclusion of subjective judgments from respondents, resulting in transparent and meaningful interconnections throughout the model.

The TISM process follows a structured sequence of steps:

- 1. Identification of Key Factors: Key factors are identified through an extensive literature review.
- 2. Establishment of Contextual Relationships: Contextual relationships are established between the identified factors.
- 3. Interpretation of Relationships: Each relationship is interpreted to understand its influence or enhancement among factors.
- 4. Pair wise Comparisons: Pair wise comparisons are conducted to determine the nature of relationships between factors.
- 5. Formulation of Reachability Matrix: A reachability matrix is developed based on the comparisons, with transitivity checked to ensure logical consistency.
- 6. Hierarchical Partitioning: Factors are organized into hierarchical levels based on their relationships.
- 7. Construction of a Digraph: A digraph is constructed to visually represent the relationships between factors.
- 8. Transformation into an Interaction Matrix: The digraph is refined into an interaction matrix, with transitive links further adjusted.
- 9. Development of TISM Model: The final TISM model is developed using connective logic and interpretive insights, establishing directive links between nodes for a comprehensive understanding of interrelationships.

This approach enables a detailed mapping of complex relationships, generating managerial insights and fostering a deeper understanding of qualitative research. The following tables outline the reachability matrix and the hierarchical levels of factors influencing buyers' purchase intentions for handicrafts.

S. No.	Variable Code	Variables
1	1	Cultural Factors
2	2	Social Factors
3	3	Personal Factors
4	4	Psychological Factors
5	5	Lifestyle
6	6	Personality and Self-Concept
7	7	Marketing and Advertising
8	8	Price Sensitivity
9	9	Technology and Innovation
10	10	Situational Factors

Table 1: List of variables and their codes for TISM modeling

## 4. Analysis and Results

## TISM Model

Table 2: Reachability Matrix

	B1	B2	В3	B4	B5	В6	B7	B8	B9	B10
B1	1	1	1	0	0	0	0	0	0	0
B2	0	1	0	0	0	0	0	0	0	0
В3	0	1	1	0	0	0	0	0	0	0
B4	0	0	0	1	1	0	0	0	0	1
B5	0	0	1	1	1	0	1	0	0	1
B6	0	0	0	0	0	1	0	0	1	1
B7	0	1	1	1	0	0	1	0	0	0
B8	0	0	0	0	0	1	0	1	1	0
B9	0	0	1	0	0	1	0	0	1	0
B10	0	0	0	0	0	0	0	0	0	1

Table 3: Reachability Matrix with transitivity

	B1	B2	B3	B4	B5	B6	В7	B8	B9	B10
B1	1	1	1	0	0	0	0	0	0	0
B2	0	1	0	0	0	0	0	0	0	0
В3	0	1	1	0	0	0	0	0	0	0
B4	0	1*	1*	1	1	0	1*	0	0	1
B5	0	1*	1	1	1	0	1	0	0	1
B6	0	1*	1*	0	0	1	0	0	1	1
В7	0	1	1	1	1*	0	1	0	0	1*
B8	0	1*	1*	0	0	1	0	1	1	1*
B9	0	1*	1	0	0	1	0	0	1	1*
B10	0	0	0	0	0	0	0	0	0	1

Table 4: Partitioning the Reachability Matrix into different levels

Variables	Reachability Set	Antecedent Set	Intersection Set	Level
a) Iteration 1				
B1	1,2,3	1	1	
B2	2	1,2,3,4,5,6,7,8,9	2	I
В3	2,3	1,3,4,5,6,7,8,9	3	
B4	2,3,4,5,7,10	4,5,7	4,5,7	
B5	2,3,4,5,7,10	4,5,7	4,5,7	
B6	2,3,6,9,10	6,8,9	6,9	
B7	2,3,4,5,7,10	4,5,7	4,5,7	
B8	2,3,6,8,9,10	8	8	
B9	2,3,6,9	6,8,9	6,9	
B10	10	4,5,6,7,8,10	10	II
b) Iteration 2				
H1	1,3	1	1	
B3	3	1,3,4,5,6,7,8,9	3	III
B4	3,4,5,7	4,5,7	4,5,7	
B5	3,4,5,7	4,5,7	4,5,7	
B6	3,6,9	6,8,9	6,9	
B7	3,4,5,7	4,5,7	4,5,7	
B8	3,6,8,9	8	8	
B9	3,6,9	6,8,9	6,9	
c) Iteration 3				
B1	1	1	1	IV
B4	4,5,7	4,5,7	4,5,7	V
B5	4,5,7	4,5,7	4,5,7	V
B6	6,9	6,8,9	6,9	VI

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B7		4,5,7	4,5,7	4,5,7	V
B8		6,8,9	8	8	
B9		6,9	6,8,9	6,9	VI
d)	Iteration 4				
В8		8	8	8	VII

Table 5: List of variables and their levels in TISM

S. No.	Variable Code	Variables	Level in TISM
1	2	Social Factors	I
2	10	Situational Factors	II
3	3	Personal Factors	III
4	1	Cultural Factors	IV
5	4	Psychological Factors	V
6	5	Lifestyle	V
7	7	Marketing and Advertising	V
8	6	Personality and Self-Concept	VI
9	9	Technology and Innovation	VI
10	8	Economic Factors	VII

Diagraph- Figure 2 given below provides for the diagraph of the above TISM Model.

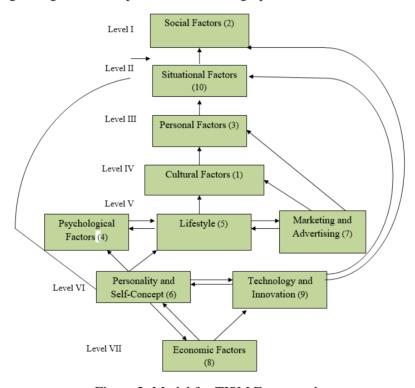


Figure 2: Model for TISM Framework

#### 5. Discussion

It can be seen from Figure 2 Level VII consists of variable 8 namely Economic Factors (8), which affects Personality and Self-Concept (6) and Technology and Innovation (9). On the

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other hand Economic Factors (8) also gets affected by Personality and Self-Concept.

Level VI comprises of Personality and Self-Concept (6), and Technology and Innovation (9). Personality and Self-Concept (6) affects Technology and Innovation (9). And Technology and Innovation (9) affects Personality and Self-Concept (6). Technology and Innovation (9) also affects Social Factors (2) level 1 and Situational Factors (10) level II. On the other hand Personality and Self-Concept (6) affects Situational Factors (10) level II. It also affects Psychological Factors (4) level V and Lifestyle (5) level V.

Level V consists of Psychological Factors (4), Lifestyle (5), and Marketing and Advertising (7). Psychological Factors (4) casts impact on Lifestyle (5) and vice-versa. Similarly, there is a two way relationship between Lifestyle (5) and Marketing and Advertising (7) and they both affect each other mutually. Lifestyle (5) also impacts Cultural Factors (1) level IV.

Level IV comprises of Cultural Factors (1) and it affects Personal Factors (3) level III. It gets affected by Lifestyle (5) and Marketing and Advertising (7) level V.

Level III consists of Personal Factors (3) and it affects Situational Factors (10) level II and gets affected by Cultural Factors (1) level IV.

Level II comprises of Situational Factors (10). It affects Social Factors (2) level I and gets impacted by Technology and Innovation (9) VI and Personality and Development (6) level VI.

Level I consist of Social Factors (2) and gets impacted by Situational Factors (10) level II and Technology and Innovation (9) level VI.

#### 6. Implications

#### 6.1 Practical Implications

By utilizing Total Interpretive Structural Modeling (TISM), this research provides a structured framework that reveals the complex interdependencies among key factors driving consumer purchasing decisions. Understanding these factors allows businesses to tailor their marketing strategies more effectively, focusing on high-impact elements like product quality, brand reputation, and consumer trust. Retailers can leverage these insights to enhance customer experiences, develop targeted promotions, and optimize inventory based on the most influential drivers of buying behavior. For policymakers, this model offers valuable guidance for consumer protection initiatives, ensuring that marketing practices align with ethical standards. Overall, this research facilitates more informed decision-making, enabling stakeholders to better anticipate and respond to consumer needs and preferences.

#### 6.2 Theoretical Implications

This study extends the traditional understanding of consumer behavior by uncovering nuanced, hierarchical relationships among influencing factors. Unlike conventional models, which often treat these factors as isolated or linear, TISM reveals a layered and interconnected framework, emphasizing the significance of interpretive relationships in shaping consumer decisions. This approach adds depth to existing theories, suggesting that consumer behavior is not merely influenced by individual factors but is the result of dynamic interdependencies among multiple elements, such as social influence, brand perception, and psychological drivers. Furthermore, *Nanotechnology Perceptions* Vol. 20 No. S16 (2024)

this study reinforces the utility of TISM in qualitative research, offering a methodological blueprint for researchers exploring complex, multi-dimensional phenomena. By doing so, it opens avenues for further theoretical exploration of interconnected consumer behavior models, thereby advancing the field with a robust, interpretive structure.

## 6.3 Research Implications

This research demonstrates a novel approach to examining the intricate, interdependent factors that shape buying behavior, highlighting TISM's utility for future studies that involve complex, multi-factor analysis. This model encourages researchers to move beyond linear frameworks, advocating for a deeper investigation into the layered relationships between factors such as psychological motivations, cultural influences, and perceived brand value. Additionally, the study's findings can stimulate further research into cross-cultural and sector-specific adaptations of TISM, prompting new studies to explore how these relationships may vary across diverse consumer segments and industries. This research underscores the importance of interpretive methodologies in consumer behavior studies, paving the way for future work that seeks to uncover both direct and subtle influences on consumer decisions within dynamic market environments.

#### 6.4 Social Implications

The study carries important social implications by shedding light on the underlying factors that drive consumer decisions, which can influence societal trends and consumer welfare. By understanding the complex interrelationships between factors like social influence, cultural values, and personal perceptions, businesses and policymakers can better align their strategies to address the evolving needs and preferences of diverse consumer groups. This research can promote more ethical marketing practices, as it encourages a deeper understanding of how social and psychological factors affect purchasing behavior, potentially reducing manipulative or misleading advertising tactics. Moreover, the findings can help enhance consumer protection efforts by identifying vulnerabilities in consumer decision-making, particularly in areas such as online shopping and impulse buying. Socially, this study can contribute to promoting responsible consumption, encouraging sustainable and informed purchasing choices that benefit both consumers and society as a whole. Additionally, it can help in fostering inclusivity by recognizing the role of cultural diversity in shaping consumer preferences, ensuring that marketing strategies resonate with varied social and demographic segments.

#### 7. Limitations

Present study has several limitations that should be acknowledged. First, the reliance on expert judgment in the interpretive process of TISM may introduce subjectivity, as different experts could interpret the relationships between factors differently, potentially affecting the consistency of the results. Second, the study's focus on a specific market or consumer segment may limit the generalizability of the findings to broader or diverse populations, especially in cross-cultural or international contexts. Third, while TISM provides a structured framework for understanding interdependencies, it may not fully account for dynamic changes in consumer behavior over time, particularly in fast-evolving industries such as technology or

fashion. Fourth, the study's reliance on qualitative data for pairwise comparisons may not capture the full complexity of consumer decision-making, which is influenced by numerous external factors such as economic conditions, technological advancements, or geopolitical influences. Finally, the hierarchical structure generated by TISM, while useful, may oversimplify the fluid and often non-linear nature of consumer buying behavior, as many factors can simultaneously influence or interact in complex ways. These limitations suggest that future studies could explore incorporating quantitative data or expanding the scope to more diverse consumer behaviors and contexts.

#### 8. Conclusion

In conclusion, the study provides valuable insights into the complex, interdependent factors that influence consumer purchasing decisions. By utilizing Total Interpretive Structural Modeling (TISM), the research not only identifies key drivers of consumer behavior but also uncovers the intricate relationships and hierarchies among these factors. This approach enhances the understanding of how psychological, social, cultural, and economic influences interact to shape buying behavior, offering a more holistic view compared to traditional models. The study's findings have practical implications for marketers, retailers, and policymakers, as they can inform more targeted, effective strategies for engaging with consumers and addressing their evolving needs. While the study has some limitations, including the subjectivity inherent in expert judgment and the potential lack of generalizability to diverse contexts, it contributes significantly to both the theoretical and practical understanding of consumer behavior. Future research could expand upon this work by incorporating broader datasets or exploring how these relationships may change over time or across different markets. Ultimately, this study demonstrates the utility of TISM as a powerful tool for modeling complex, multi-dimensional phenomena like consumer buying behavior, offering a foundation for further exploration in this field.

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