

Designing Multidimensional Digital Purchase Journeys: CASCADE and CASMOT Conceptual Models

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ABSTRACT

This study conducted nationwide panel surveys in Japan from 2022 to 2024 and revealed the increasing complexity and multidimensionality of consumer purchase behaviors that go beyond traditional linear models. Each stage of the process, including awareness, comparison, purchase, and post-purchase, was visualized using Channel Journey diagrams. These diagrams illustrate how different purchase logics, such as a focus on points, resale value, or trust, are flexibly selected and combined according to the context or product type. During our analysis, we propose two new frameworks to complement existing models. The CASCADE model is effective for designing consumer experiences, while the CASMOT model is useful for behavioral analysis. These frameworks clarify the unique characteristics of Japanese consumer journeys and provide new directions for the design and analysis of multi-layered purchase experiences

Keywords: UX design, Service design, Commerce, Purchase behavior

INTRODUCTION

Since the early 2020s, global shifts in social and economic conditions, alongside rapid advancements in digital technology, have driven significant diversification in both consumer purchasing behavior and experience. In Japan, the widespread adoption of e-commerce, cashless payment systems, loyalty point programs, and the evolution of social media and online information platforms have collectively enabled consumers to select from a broader range of channels and services, customizing their purchasing processes to suit individual needs and contexts.

Amid these sweeping changes, consumer experiences are evolving beyond traditional linear and stage-based models. While grounded in these established frameworks, purchasing behaviors in Japan have adapted and grown into more complex, multi-layered, and flexible forms. Actions and value systems are now dynamically reconfigured based on surrounding situations and contexts, reflecting a progression from single-path models to adaptive, context-responsive journeys.

The primary aim of this study is to clarify how Japanese consumer journeys have diversified and grown more complex, drawing on survey data collected from nationwide panel surveys conducted between 2022 and 2024.

The survey comprehensively captures a wide range of aspects across each phase of the purchase process, such as the use of different sources of information and channels for awareness, comparison, and purchase, the influence of economic ecosystems including point programs and payment methods, post-purchase value or resale orientation, and expectations for customer support.

In this paper, we examine, based on the data, how multi-dimensional purchase logics and value systems coexist and are flexibly switched depending on the context in contemporary Japanese consumer behavior, as well as how experience design processes such as branching, parallel progression, and reintegration are manifested.

Literature Review & Context

Stage-based process models such as AIDMA, proposed by Samuel Roland Hall, and AISAS (Dentsu, 2005) have been widely used to make the flow of consumer behavior visible, from initial awareness through to purchase and even post-purchase information sharing. With the rise of the digital era, further frameworks such as AISCEAS (Kazuyoshi Mochino, 2005), SIPS (SATONAO Open Lab, 2011), and DECAX (Dentsu, 2015) have emerged.

These models expand upon previous theories by incorporating elements such as information searching and experiential features unique to the age of social media, reflecting the increasingly diverse and complex nature of consumer experience.

At the same time, with advances in service design and user experience (UX), there has been a growing emphasis on holistic experience design that goes beyond the act of purchasing alone. Approaches such as customer journey mapping and service blueprints now highlight the importance of encompassing not only multiple channels and daily life situations, but also the support and interactions that follow after purchase. As a result, the optimization of the consumer experience has expanded from a focus on individual products or services to an approach that takes into account personal situations, contextual factors, value systems, and broader social backgrounds.

In recent years, it has become increasingly clear that one-dimensional or unidirectional process models are not sufficient to fully explain consumer behavior, leading to the development of new models. For instance, SEAMS (Masashi Miyamae et al., 2024) was proposed as a framework for understanding contemporary, serendipitous purchasing behavior in today's information-rich environment, emphasizing the flexibility and dynamism in how values and decision-making criteria shift depending on situation, purpose, product attributes, social environment, and individual psychology.

As Hori Mayumi (2013) noted, consumer behavior is constantly transforming, reflecting the continual changes in modern society. Designers are now expected to adapt to these ongoing shifts by selecting and applying frameworks that best fit the evolving trends and demands of the times. In

this light, the development of new models that can visualize various forms of branching and multi-layered consumer experiences is anticipated to become increasingly important in the future.

Methodology

This study is based on quantitative data collected through nationwide panel surveys of Japanese consumers conducted between 2022 and 2024. Each year, data were gathered via online surveys from a sample of 2,900 to 4,350 male and female respondents aged 20 to 69 years, representing a broad cross-section of the Japanese population. The scope of the survey included 11 to 13 categories of consumer goods—such as food, daily necessities, fashion, consumer electronics, home interiors, gifts, and pharmaceuticals—comprising a total of 29 to 30 product groups. This breadth enabled comprehensive analysis of consumer behavior across various product attributes and purchase contexts.

The questionnaire was structured around major stages of the purchase journey: “awareness,” “comparison and consideration,” “purchase,” and “post-purchase.” At each phase, questions addressed the use of different channels (including brick-and-mortar stores, online marketplace, official company website, social media, video platforms, and emerging technologies such as AR/VR), utilization of payment and points programs, satisfaction with the purchase process, and customer support experiences. Since 2023, additional questions have been included to reflect changing consumption patterns; these address the distinction between in-store and online shopping, adoption of cashless payments, engagement with point-based economic ecosystems, and reasons for continued or discontinued engagement after purchase.

Analysis was carried out by visualizing trends and changes in consumer behavior by product category, age group, channel, and purchase phase for each survey year. The analysis focused on extracting multidimensional and context-adaptive behavioral patterns, such as the conditions under which specific purchase logics (trust, empathy, economic rationality, etc.) emerge, and the bifurcation between simplification and increased complexity. Data from 2023 and 2024 further highlighted emerging factors including webrooming, resale consciousness (in 2024), and sustainability-driven motivations, which are redefining the value of the purchasing experience.

Findings

In the following sections, we describe the processes of consumer purchase behavior and the accompanying diversity of actions and values observed. These findings are presented in reference to Figure 1, which offers an overview diagram of the consumer purchase behavior patterns identified in this study.

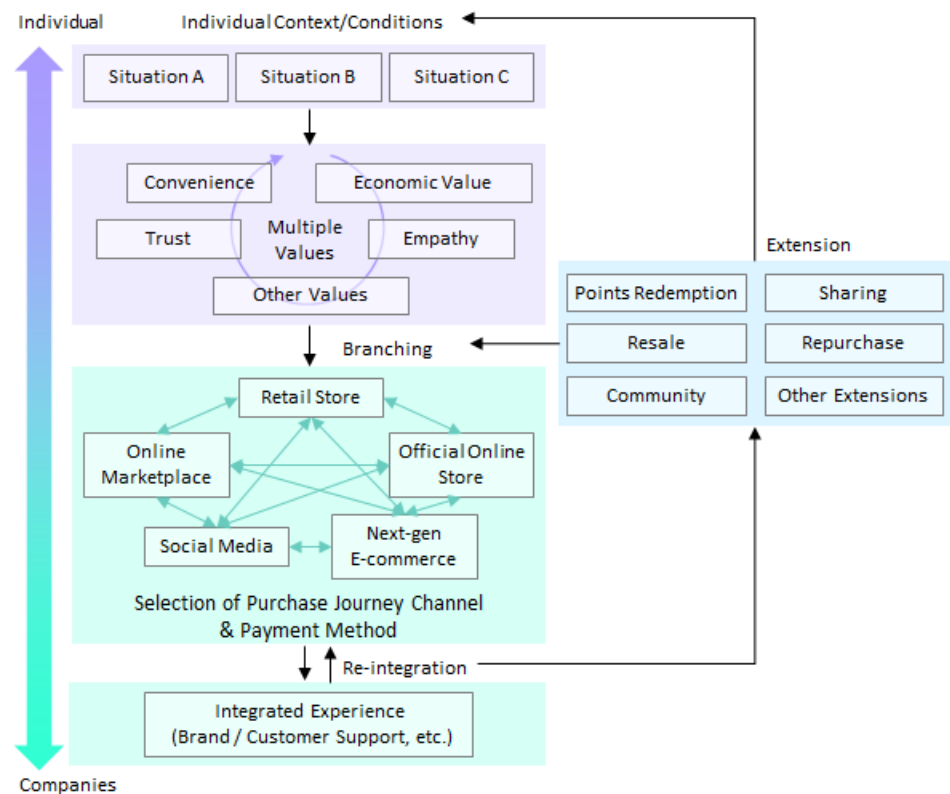


Figure 1: Overview of multidimensional purchase journey model.

Simplification and Complexity of the Purchase Process

According to the survey, the percentage of consumers using online channels for product comparison increased steadily, from 50.0% in 2022, to 52.2% in 2023, and 55.7% in 2024. This trend was especially seen in categories such as consumer electronics and gifts, where an online preference emerged. These results indicate that Japanese purchasing behavior has gone beyond a simple linear process, showing flexible and diverse changes depending on the product, the situation of the consumer, and the broader social environment.

From 2022 to 2024, a shift was observed. In 2023, a simple, one-stop purchasing style—from awareness, through comparison, to purchasing—became stronger, particularly for daily necessities and low-risk items. On the other hand, in 2024, a more complex process of switching between online and offline channels became apparent for high-priced items such as electronics and gifts, and situation-dependent changes in purchasing behavior were observed.

The main channels used for each stage (awareness, comparison, and purchase) in major product categories were summarized as Channel Journeys in order to visualize branching points and the phenomenon of value switching. Figure 2 is the Channel Journey for the fashion category in 2024.

	Awareness (Single answer)	Comparison & Consideration		Purchase (Single answer)
		Channels Used for Comparison & Consideration (Multiple answers)	Most Useful Place (Single answer)	
1st	In-store 25.5%	In-store 27.6%	In-store 19.7%	Specialty Store 14.5%
2nd	Online Marketplace A 9.8%	Official Company Website 25.1%	Official Company Website 11.5%	Department Store 13.3%
3rd	Social Media C 9.3%	Online Marketplace A 25.0%	Online Marketplace A 9.3%	Online Marketplace A 11.6%
4th	Official Company Website 9.0%	Online Marketplace B 21.0%	Social Media C 8.7%	Shopping Mall / Station Building Shopping Mall 11.4%
5th	Online Marketplace B 5.6%	Social Media C 18.2%	Online Marketplace B 6.7%	Online Marketplace B 8.4%
WB Pre Total	(n=300)	(n=300)	(n=300)	(n=300)
WB Post Total	(n=302)	(n=302)	(n=302)	(n=302)

■ Online channels ■ Offline channels

Figure 2: Channel journey for the fashion category in 2024.

Switching of Values by Category and Situation

The values emphasized at the time of purchase have become more diverse. For example, in the 2024 survey, 37.3% of online marketplace users chose their purchase channel because they wanted to earn points, while 12.5% of those using official company website prioritized a sense of security. For consumer electronics and other high-priced products, respondents highly valued “accuracy of information” and “the support provided by official websites”; 24.2% of electronics purchasers reported that they felt assured because they were buying from the official site. In contrast, for daily necessities, factors such as same-day pickup, price, and point rewards were the main considerations, highlighting the importance of convenience and economic benefit.

Among younger consumers, empathy and the sharing of experiences through social media and video also played a role in product selection, especially for gifts and fashion items.

The emphasis on these values constantly shifts according to individual circumstances, life stage, and social psychology. For example, in times of heightened risk or anxiety, security and trust are prioritized, while in busy periods, quick decision-making and convenience take precedence. Although there were differences by age group, it was observed that flexible switching of purchasing logic according to situation and product has become established across all segments.

The Value of Experience in Point Programs and Cashless Payments

In addition, the majority of consumers use multiple point programs and cashless payment methods. Point programs in Japan have developed in a unique way, allowing people to earn and use points flexibly in various situations, beyond the boundaries of specific product types. The practice of collecting and using points is called POIKATSU, and 96% of respondents reported participating in some form of point collection. Japanese-style POIKATSU is not limited to economic advantages; it also supports the enjoyment and customization of the shopping experience. On the other hand, the increase in different types of points and payment methods has led to greater complexity, which has surfaced as a user experience challenge (Cross Marketing Inc., 2021; G-plan Inc., 2024).

Expansion of Risk-Hedging Purchases and Resale Orientation

For high-priced products and items intended for long-term ownership, greater emphasis is now placed on risk diversification in purchasing, resale value, and asset value after acquisition. There is a growing trend of consumers seeking to “extend value after purchase” and make purchases they will not regret.

In the 2024 survey, 4.8% of respondents reported that they now consider potential resale (future selling) when choosing products, an increase from the previous year, and 8.8% had experience purchasing used items.

These trends are also linked to increased sustainability awareness and changes in lifestyle, contributing to the rise in resale-oriented consumers. The structure of the consumer experience is thus shifting toward a cycle that includes pre-purchase, post-purchase, ownership period, and eventual redistribution.

Expectations and Challenges in Customer Support

Finally, the survey reconfirmed that the quality of customer support and overall customer satisfaction plays a crucial role in sustaining purchasing behavior and building brand trust. According to a 2024 survey, consumers in Japan consider not only products and pricing, but also additional services—such as the availability of returns and exchanges (20.3%), delivery and arrival notifications via email or message (18.4%), and responsive customer inquiry support (13.9%)—to be especially desirable. This suggests that Japanese consumers increasingly expect easy access to assistance when issues arise, consistent and reliable support, and a satisfying, seamless purchasing experience, rather than being limited to the core attributes of products or price alone.

Looking ahead, the design of customer support experiences—particularly through predictive and integrated approaches—is expected to become a key differentiator among service providers. These findings underscore the growing importance of support systems that not only respond reactively to

customer needs, but also anticipate them proactively and deliver a unified, end-to-end service experience throughout the purchasing journey.

New Frameworks for Contemporary Purchase Journeys: CASCADE and CASMOT

Traditional stage-based consumer models, such as AIDMA and AISAS, have long been used to clearly organize the sequence of consumer awareness and behavioral flow, and are still widely referenced today. This study proposes two new frameworks that leverage the strengths of these existing models while responding to the increasingly complex and multi-faceted nature of modern consumer behavior, including the coexistence of multiple personal values within individuals, context-specific branching, frequent value switching, cross-channel movement, and post-purchase experience expansion.

The first, the CASCADE model, is particularly useful for structuring service design and UX processes in contexts where individual consumers flexibly switch between multiple internalized values and channels according to their situations.

CASCADE organizes the customer journey as a circular process, starting with context scanning (Context Scan), moving through simultaneous activation of multiple values (Activation), switching and selecting between value logics (Switch & Select), utilizing multiple channels in parallel (Channel Diversion), taking action (Action), dynamic reintegration of experiences (Dynamic Integration), and extension of experiences beyond the original purchase (Extension).

On the other hand, the CASMOT model is particularly effective for visualizing and analyzing purchase journeys that unfold along diverse pathways, and is especially suitable for tracking and analyzing, within actual data, how value switching and cross-channel behaviors occur. CASMOT is well suited to empirical observation and data analysis. It organizes purchase behavior into stages such as context scanning (Context Scan), concurrent identification of multiple logics (Activation), switching and selecting of logic (Switch & Select), multi-channel progression at the individual level (Multi-Channel), omni-channel tracking at the aggregate level (Omni-trace), and reintegration (Trace), providing a practical framework for the visualization and analysis of complex phenomena.

Both models supplement conventional frameworks, and are meaningful in their ability to clearly describe trends often seen in modern consumer behavior, such as frequent value switching based on context or mood, branching and multi-track experiences, and the continued expansion and circulation of value after purchase. By applying and combining these models, it becomes possible to support both the design and analytical aspects of a wide range of consumer experience innovations.

Experience Design Cycle CASCADE Model		Phenomenon Analysis of Purchasing Behavior CASMOT Model	
C Context Scan	Recognize the individual's context, including psychological state, life environment, social background, etc.	C Context Scan	Objectively observe contexts and situations, and transform them into data that can be analyzed.
A Activation	Multiple value logics simultaneously emerge as "criteria" or "options" in the mind.	A Activation	A variety of multidimensional value logics are observed concurrently in actions and data.
S Switch	Internal selection of which values to prioritize based on the situation (self-initiated, subjective switch).	S Switch & Select	Observed and visualized switching of value logics detected in actual behaviors or data (external/data-driven perspective).
C Channel Diversion	Routes action to the most appropriate channel based on selected logic (in-store, online store, social media, points, etc.).	M Multi-Channel	Analyze the progression and switching of multiple channels within individual purchase journeys.
A Action	Take actual purchasing actions (choosing, buying, applying, visiting, etc.)	O Omni-trace	Comprehensively analyze patterns and branching points across user groups and segments.
D Dynamic Integration	Experiences are reintegrated on the service/brand side with consistency, integrating extended value.	T Trace	Analyze, evaluate, and monitor experiences, brands, and support.
E Extension	Expand post-purchase experiences—promote further actions and cyclical engagement..		

Figure 3: The CASCADE and CASMOT models: two frameworks for modern multidimensional purchase journeys.

Discussion

This study has shown that consumer purchasing behaviors in Japan do not progress according to a single pattern. Rather, they flexibly adapt to situations, product categories, individual psychologies, and social environments. Multiple values—such as trust, economic rationality, empathy, and convenience—coexist and are dynamically switched, reflecting an advanced and contemporary purchasing process.

The purchasing process oscillates between “simplification” and “complexification” depending on the situation. High-priced products are characterized by multi-stage and cautious purchasing experiences, involving information gathering, in-store confirmation, risk hedging, and attention to resale value. In contrast, for daily necessities and low-risk goods, the simple, one-stop style is more prevalent.

The diversification and utilization of point programs and cashless payments have broadened the enjoyment and freedom of the purchasing experience, but have also led to the emergence of management complexity and user experience (UX) issues.

Furthermore, the desirability of accessible customer support and overall customer satisfaction has once again emerged as an important issue. Consumers value not only products and prices but also services that allow for easy consultation, consistent support, and a pleasant purchasing experience. In this context, the need for integrated, predictive, and consistent customer support has become a major focus for future service and experience design.

Overall, these findings indicate that Japanese purchasing behavior is currently at a stage where values and processes can flexibly change according to situation and category, with multidimensionality and circulation as defining characteristics. Experience design now requires a balance between context-adaptive UX and the consistency and proactivity of customer support.

CONCLUSION

In conclusion, Japanese purchasing experiences have evolved into a cyclical structure characterized by context adaptation, multiple values, branching, multi-track progression, and reintegration. It has become clear that, for effective service and UX design, it is essential to enable context-based switching, the simultaneous inclusion of diverse values, consistently designed channels and processes, and the extension of user experience beyond the point of purchase. Furthermore, by utilizing models such as CASCADE and CASMOT, together with multifaceted approaches, it is expected that more flexible and sustainable experience design will be possible, promoting further development of service-oriented society.

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