

# The Impact of Time Perspective on Product Choices: The Mediating Role of Perceived Time Scarcity

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**Abstract:** This study explores the influence of time perspective (linear vs. cyclical) on consumer product choices (virtue vs. vice) and proposes a theoretical model in which perceived time scarcity acts as a mediator. By reviewing and synthesizing relevant literature, we analyze the mechanisms through which time perspective affects perceptions of time scarcity and further examine how these perceptions drive consumer preferences for different product types. Several theoretical hypotheses are proposed to guide future empirical research. This study aims to provide both theoretical and practical guidance for time management, consumer behavior, and marketing fields.

**Keywords:** Time Perspective, Virtue, Vice, Product choices, Perceived time scarcity.

## 1. Introduction

Time is one of the most critical resources in modern society, and its scarcity and allocation significantly impact consumer behavior patterns (Goodin et al., 2008). Different time perspectives—individual or cultural perceptions and beliefs about the nature and use of time—shape people's understanding of time and influence their decision-making processes (Hall, 1983; Levine, 1997).

Recent years have witnessed a growing interest in extending the study of time perspectives from cultural psychology to consumer behavior. Research has shown that time perspectives not only determine individual time management styles but also significantly affect purchasing behavior and consumption preferences. For instance, a linear time perspective emphasizes future orientation, leading consumers to prefer products with long-term benefits (Bluedorn, 2002). In contrast, a cyclical time perspective encourages a focus on present enjoyment, fostering preferences for immediate gratification in consumption choices (Graham, 1981).

However, existing research lacks a thorough examination of how time perspective specifically influences consumer product choices, particularly regarding the mediating mechanisms involved. This study seeks to address this gap by proposing a theoretical framework in which time perspective influences product choice through perceived time scarcity. We hypothesize that a linear time perspective increases perceptions of time scarcity, thereby reinforcing preferences for virtue products. Conversely, a cyclical time perspective reduces perceptions of time scarcity, encouraging preferences for vice products.

By addressing these issues, this study contributes to the following areas:

- (1) Enriching theoretical research on time cognition in the field of consumer behavior.
- (2) Providing practical insights into the application of time management in marketing.
- (3) Establishing a foundation for subsequent studies on the relationship between time perspective and other psychological variables.

## 2. Literature Review

### 2.1. Time Perspective: Linear vs. Cyclical

Time perspective is a central theme in cultural psychology and consumer behavior research. Hall (1983) classified time perspective into two categories: linear and cyclical.

**Linear time perspective:** Views time as a linear, irreversible resource. Consumers with a linear time perspective tend to plan for the future and emphasize efficient use of time (Bluedorn, 2002).

**Cyclical time perspective:** Views time as repetitive and regenerative. Consumers with a cyclical time perspective typically perceive time as abundant and prioritize natural cycles and repetition (Graham, 1981).

Studies have shown that different time perspectives not only influence individual time management styles but also significantly affect perceptions of time scarcity (Wittmann & Paulus, 2008). Moreover, time perspective is closely linked to cultural contexts. For instance, Western cultures often exhibit a stronger linear time perspective, whereas cyclical time perspectives are more prevalent in Eastern cultures (Levine, 1997).

Further research has highlighted that the formation of time perspectives is influenced by cultural traditions, life experiences, occupational environments, and educational backgrounds. For example, highly competitive professional settings often reinforce a linear time perspective, while cultures that emphasize life rhythms strengthen cyclical time perspectives (Bluedorn, 2002). These studies provide essential theoretical support for understanding the diversity of time perspectives.

### 2.2. Perceived Time Scarcity

Perceived time scarcity refers to the subjective perception of insufficient time, a prevalent psychological phenomenon in modern society (Lack, 2011). Research indicates that perceived time scarcity impacts consumer behavior in several ways:

Enhancing the prioritization of short-term goals (Zhu et al., 2018). Encouraging preferences for products that offer immediate gratification (Soman, 2003). Reinforcing task planning and efficiency-driven behaviors (Goodin et al.,

2008). The formation of perceived time scarcity is influenced by various factors, with time perspective being a critical determinant (Wittmann & Paulus, 2008). A linear time perspective is often associated with higher perceptions of time scarcity, whereas a cyclical time perspective reduces the sense of urgency regarding time (Levine, 1997).

Moreover, perceived time scarcity has widespread implications for consumer decision-making. For instance, in situations of perceived time scarcity, consumers are more likely to choose products with long-term benefits to maximize the value of their time (Goodin et al., 2008). Conversely, when time is perceived as abundant, consumers are more inclined toward products that provide immediate enjoyment (Zhu et al., 2018).

### 2.3. Product Types: Virtue vs. Vice

Consumer product types are often categorized based on their immediate hedonic value and long-term benefits (Kivetz & Simonson, 2002):

**Virtue products:** Such as healthy foods, offer long-term benefits but lower immediate gratification.

**Vice products:** Such as sweets and high-calorie snacks, provide high immediate gratification but lower long-term benefits.

Consumers often face psychological conflicts when choosing between these two types of products (Laran, 2010). Time factors, such as perceived time scarcity, significantly influence this trade-off (Zhu et al., 2018).

Studies on virtue and vice products reveal that consumer choices are influenced by various psychological and environmental factors. For instance, consumers with strong self-control are more likely to choose virtue products, while those under stress or experiencing emotional dysregulation often opt for vice products to alleviate negative emotions (Khan & Dhar, 2007). Additionally, marketing strategies, such as discounts and emotional appeals, significantly affect consumer preferences (Chandon et al., 2000).

### 2.4. Integrated Framework: Time Perspective, Perceived Time Scarcity, and Product Choice

Synthesizing the above literature reveals that time perspective influences consumer product choice through perceived time scarcity. Specifically, a linear time perspective increases perceived time scarcity, strengthening consumers' focus on future benefits and preference for virtue products. In contrast, a cyclical time perspective reduces perceived time scarcity, leading consumers to prioritize immediate gratification and vice products.

This integrated framework provides a novel perspective for understanding time-related factors in consumer behavior and lays the theoretical foundation for further empirical research.

## 3. Theoretical Framework

### 3.1. Direct Effects of Time Perspective on Product Choice

The direct effects of time perspective on product choice primarily reflect consumers' preferences for short-term versus long-term rewards:

**Linear time perspective:** Emphasizes the irreversibility and finiteness of time, leading consumers to adopt a future-oriented focus and prefer virtue products (Wittmann & Paulus, 2008).

**Cyclical time perspective:** Highlights the recoverability and flexibility of time, encouraging consumers to prioritize present enjoyment and choose vice products (Levine, 1997).

### 3.2. Mediating Role of Perceived Time Scarcity

The influence of time perspective on perceived time scarcity can be analyzed as follows:

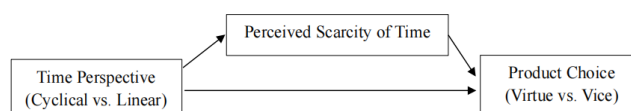
**Linear time perspective and perceived time scarcity:** Reinforces individuals' awareness of the finiteness of time, increasing their sensitivity to time scarcity. This perception drives consumers to select products that maximize long-term value (Goodin et al., 2008).

**Cyclical time perspective and perceived time scarcity:** Mitigates perceptions of time urgency, facilitating acceptance of immediate gratification in consumption (Levine, 1997).

### 3.3. Theoretical Model and Hypotheses

Based on the above analysis, the following theoretical model is proposed:

Hypotheses:



**Figure 1.** Theoretical Model and Hypotheses

H1: Linear time perspective positively predicts consumers' preference for virtue products.

H2: Cyclical time perspective positively predicts consumers' preference for vice products.

H3: Perceived time scarcity mediates the relationship between time perspective and product choice.

## 4. Research Design and Methods

### 4.1. Experimental Design

This study proposes an experimental design to test the theoretical model:

**Manipulation of time perspective:** Using experimental tasks or scenarios to induce participants' time perspectives (e.g., "life is a one-time journey" vs. "life is a cycle").

**Measurement of perceived time scarcity:** Employing Likert-scale items to assess participants' perceptions of time scarcity.

**Product choice recording:** Simulating a shopping scenario to record participants' choices between virtue and vice products.

### 4.2. Data Analysis

**Mediation analysis:** Using structural equation modeling (SEM) to analyze the mediating effect of perceived time scarcity.

**Group differences:** Conducting ANOVA to examine the direct effects of different time perspectives on product choice.

## 5. Discussion and Implications

### 5.1. Theoretical Contributions

This study extends the theoretical connection between time perspective and consumer behavior, clarifying the mediating role of perceived time scarcity. By introducing perceived time scarcity as a mediator, the study deepens our understanding of the psychological mechanisms underlying time perspective's influence on consumer decision-making.

Additionally, the findings provide a new lens for understanding the cultural and psychological factors shaping consumer preferences.

## 5.2. Practical Implications

**Marketing strategies:** Companies can design marketing campaigns tailored to the time perspectives of target consumers. For example, advertisements emphasizing future value may appeal more to consumers with a linear time perspective, while those emphasizing immediate enjoyment may attract consumers with a cyclical time perspective.

**Time management:** Organizations can help individuals optimize their time management by adjusting their time perspectives, reducing perceptions of time scarcity, and promoting either future-oriented or present-focused consumption patterns.

**Cross-cultural marketing:** Understanding differences in time perspectives across cultures can enable the development of more effective and culturally sensitive promotional strategies.

## 5.3. Limitations and Future Research

Despite its contributions, this study has several limitations:

**Lack of empirical validation:** The theoretical model requires empirical data for confirmation. Future studies could employ diverse experimental methods to test the hypotheses.

**Dynamic nature of time perspectives:** This study does not fully consider the dynamic changes in time perspectives and their long-term effects on consumer behavior.

**Cross-cultural verification:** Future research could examine the influence of time perspectives on consumer behavior across different cultural contexts.

Future studies could further explore interactions between time perspective and other psychological variables (e.g., self-control, emotional regulation) and investigate how time perspectives can be leveraged to optimize consumer decision-making.

## 6. Conclusion

This study theoretically examines the impact of time perspective on consumer product choice, proposing perceived time scarcity as a mediating mechanism. Through a literature review and theoretical analysis, we reveal how linear and cyclical time perspectives influence perceived time scarcity and, consequently, consumer preferences for virtue and vice products.

The findings provide new insights for the fields of time

management and marketing, offering practical guidance for understanding complex consumer behaviors in modern society. Companies and policymakers can tailor marketing strategies and interventions based on the time perspectives of target audiences to achieve desired outcomes. Future research can further explore interdisciplinary perspectives to deepen our understanding of the intricate relationship between time perspective and consumer behavior.

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